

Work-Centred Education as Foundation of Vocational Education

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UNIT

1

Introduction

You have been acquainted with the importance of education, work-centred education and vocational education in the preceding blocks and units of this course. Many experts feel that education is not just the process of imparting literacy and numeracy. It is actually a process of socialization that helps children cope with the natural and the social environment. They have, therefore, emphasised the need to develop a school system that builds on the solidarities in societies and tries to learn from the natural environment. The pursuit of useful and relevant education would imply a much greater focus on integrating physical and mental development and relating it to the world of work.

UNESCO's section for 'Technical and Vocational Education' promotes the development of life skills programmes in its member states in a number of ways. In particular, it provides technical advice on integrating skills development in basic education programme; promotes a competency-based approach to education and training, beginning with basic education; trains teachers and trainers to adopt a life skills-based approach in the classroom; and develops training packages on crosscutting skills such as entrepreneurship. Rapid societal changes, including innovations in technology, information exchange and communications, have increased the demand for internationally competitive workers and for an educational system designed to meet that demand. Today's students will be employed through much of the twenty-first century and will, therefore, need increasingly advanced levels of knowledge and skills. To obtain and retain high-wage employment that provides job satisfaction, they will also need to continue to learn throughout their lives.

The present unit has been developed under this backdrop to specifically introduce you to the concept and significance of work-centred education and how it forms the basis of vocational education. The unit will provide you the conceptual paraphernalia of work education along with objectives and curriculum structures as envisaged in NCF 2005.



Learning outcomes

This unit is intended to provide you a broad view of the importance of *work-centred education as foundation of vocational education* in India against the existing system of learning. At the end of the unit, you should be able to:

- explain the need and importance of work education/work-centered education in our daily life;
- analyse the linkage of work education /work-centered education to vocational education; and
- examine the importance of vocational education and its role in vocational development of the individual.

Historical background

Work education is viewed as purposive and meaningful manual work organized as an integral part of learning process and resulting into either goods or services useful to the community. It should be an essential component at all stages of education and must be provided through a well-structured and graded programme. The focus of the programme should be on development of knowledge, understanding, skills and values through need based life activities. 'Work education for all' has been emphasized time and again in the school curriculum. The integration of education and work should give way to the holistic, harmonic and synchronic development of the student as learner and a productive member of the society. Work orientation in general education programme can improve not only students' lives but also the lives of their families and communities. A historical account of work education is given as follows to have an understanding of its development in India before studying further on this area.

Before independence

Manual work as a tool of education was recognised long before the advent of formal education. In ancient India, when the students lived in the *ashrams* with their *Gurus*, they had to do every kind of manual work for their living and learning- the '*Gurukul System*'. Education was related to the life of pupils, bringing into focus the co-existence between education and work. It was education for life through life. The situation changed with the introduction of the colonial system of education, which was largely theoretical. The shortcoming that there was no provision of manual activity in general education was pointed out in the Woods Despatch (1854) on Education, which contemplated the introduction of pre-vocational education at the secondary stage. Wood and Abbott Report (1937) had also stressed the need for introducing manual activities in education for harmonious development of personality.

Deploring the ineffectiveness of book learning, Rabindranath Tagore also emphasised the role of manual work in imparting all-round education. The Wardha National Education Conference held in October 1937 endorsed the proposal made by Mahatma Gandhi that the process of education should center around some form of manual and productive work. All the other abilities to be developed or training to be given should, as far as possible, be integrally related to the central handicraft chosen, with due regard to the environment of the child. The educational ideas of Mahatma Gandhi were given practical shape by the Zakir Hussain Committee and Basic Education was accepted as the national pattern of education for the elementary stage in 1938.

After independence

Since independence, the Indian education system witnessed other conceptual versions of 'work education' namely work experience, Socially Useful Productive Work, and Art of Healthy and Productive Living. These appeared over the years in a chronological order, thereby suggesting that the appearance of these programmes is not isolated or sudden. These may, in fact, be looked upon as progressive attempts towards gradual improvement and refinement in the concept of learning by doing.

The Education Commission (1964-66) emphasised the role of education as a powerful instrument of social, economic and political change. The Commission concluded that one of the means of achieving educational transformation, leading to national development, was by linking education to productivity, and this link could be forged by introducing work experience as an integral part of general education. The Curriculum for the Ten-Year School – a Framework (1976) included work experience as an integral component of school curriculum as visualised by the Kothari Commission.

This was further reviewed by the Ishwar Bhai Patel Committee (1977), which reaffirmed the Gandhian concept of socially useful productive work.

The *National Policy on Education* (1986) has conceived work experience as purposive and meaningful manual work that results in goods or services, which are useful to the society in the areas of health and hygiene, food, clothing, shelter, recreation and social service in accordance with mental abilities and manual skills of children at various stages of education and the availability of local resources. It assigned equal importance to community work and social service for creating social awareness and concern for the welfare and development of the local community or society at large. Delors Commission report (1996) "Learning the Treasure Within" highlighted that the principle of "Learning to do" should form one of the pillars of education and closer attention should be paid to prepare students for working life.

The National Curriculum Framework for School Education (NCERT, 2000) suggested the scheme of studies for Art of Healthy and Productive Living and Work Education at different stages of school education. Art of Healthy and Productive Living will aim at the all round development of the personality of the child in the early stage of schooling. At this stage, health, sports, recreation activities, aesthetic development, creative activities and value inculcation components emphasised. For primary stages, Class I to V, Art of Healthy and Productive Living, for upper primary and secondary stages, Work Education has been suggested and for higher secondary stages work education/generic vocational course has been suggested.

ACTIVITY 1



Based on the discussion on the background of the development of work related education presented above, outline briefly their implications for a country like India in about 100 words.

Conceptual framework

The concept of integrating work with education forms the underlying principle for vocationalisation from the primary to the tertiary stages in various but inter-related forms. At the school level, 'Art of Healthy and Productive Living' is the term used at the primary stage, work education at the upper primary and secondary stages, pre-vocational education at the secondary stage and generic vocational course features at the higher secondary stage. Vocational education has now been

extended to the tertiary stage of education. Further, Enterprise Education adds value to the concept of vocational education. Some of these concepts are explained below.

Art of healthy and productive living

The *National Curriculum Framework for School Education* (2000) suggested the introduction of an interdisciplinary area of learning at the primary stage, integrating the major components of Health and Physical Education, Art Education and Work Education. The main objective of art of healthy and productive living is to develop aesthetic sensibilities and skills of healthful living besides providing a nurturing ground for love for labour, positive social attitudes and moral values.

Work education

The essential attribute of work education is its manual character, which means that the children are supposed to work with their hands and thereby develop a sense of dignity of labour and stamina for hard work. Manual work should also be purposive and educative. It should help develop knowledge, understanding, attitudes, personal-social qualities and skills related to the world of work. Social or community service for the welfare and development of the community or society at large was also considered an essential component of work education.

The activities pertaining to work should be organised to realise the objectives of work education, which includes respect for manual work, values for self-reliance, cooperativeness, perseverance, helpfulness, tolerance and work ethics, besides positive attitudes and values and concern for the community. The theory and practice have to be such that it enables learners to understand the facts, terms, concepts and scientific principles involved in various forms of work situations, know the sources of raw-materials, understand the use of tools and equipment in production and service processes, acquire skills needed for technologically advancing society and conceptualise their role in productive situations.

Pre-vocational education

Scheme for introducing Pre-Vocational Education was launched in 1993-94 with the idea to impart training in simple marketable skills to students of Classes IX and X, as a large section of the students do not reach the +2 stage. It stressed the development of vocational interests and aptitudes to allow the self-exploration of vocational preferences by participation in various work related activities. It is considered as a desired dimension of academic education to affect a congenial work culture. The skill training imparted through pre-vocational course would not be of the level that can be called vocational, yet it gives the student sufficient insight to explore the particular area of the world of work.

The important features of the scheme of Pre-Vocational Education include the availability of at least 20 per cent of the total time in schools for this purpose. The Pre-Vocational Education would be module based and the institution would offer at least three to four activity based modules, relevant to the local needs. The pre-vocational education programme would normally be started in such institutions where vocational stream has already been introduced at +2 level and the required infrastructure and manpower facilities are available. However, other secondary schools having the required facilities may as well introduce the programme. Well-planned and vigorously implemented pre-vocational programme will allow students to explore their own talents, interests and aptitudes on the one hand and avail opportunities in the world of work on the other.

Generic vocational course

The generic vocational course (GVC), was planned to be offered at the +2 stage of the academic stream to impart those basic skills, key competencies and transferable skills, which prepare an individual for an occupation in general. The GVC makes the students more trainable and multi-skilled. The GVC in a broader perspective is a decisive step towards improving the relevance and quality of general education and preparing the youth for the emerging technology oriented society. It attempts to acquaint the students with the state-of-art technologies in the field of information, communication and computer application.

It would develop those generic skills that cut across various vocations and are needed by all the members of the educated work force regardless of the person's occupation. The outcome would be the development of proper work culture and the acquisition of key transferable skills for future occupational life.

Vocational education

Introduction of the vocational stream at the +2 level, as recommended by the Kothari Commission (1964-66), had far reaching consequences in the context of providing skilled manpower enriched with entrepreneurial skills and competencies. The main objectives of this scheme were diversification of educational opportunities, reduction of the mismatch between demand and supply of skilled manpower and provision of an alternative for higher education. While opportunities for formal employment in organised sectors are now decreasing, they are increasing in unorganised and service sectors. Skills necessary for self-employment and entrepreneurship are to be provided to all the students entering the field of vocational education. Vertical and lateral linkages need to be developed in order to offer better career options to vocational students and to give respectability and acceptability to the vocational education programme.

Work education in scheme of studies

The National Curriculum Framework for School Education (2000) suggested the following scheme of studies for different stages of school education. Work Education should be an essential component at all stages of education and should be provided through a well-structured and graded programme. At the primary level, children can be involved in the observation of work situations, actual participation and also the production and preparation of a few articles. At the upper primary stage, the continuation of work education would reinforce respect for meaningful work. In view of the maturity level of the students at the secondary stage, the activities should become more varied and complex.

Preparation for primary education (2 years)

This stage of education helps in preparing children for schools and constitutes an important element of Early Child-hood Care and Education (ECCE). It is available as a pre-school education component in various forms such as under Integrated Child Development Scheme (ICDS) through a net working of 'Anganwadis', preparatory schools, nursery and kindergarten classes, both in private and government sectors at varying degrees. It is to be realised that the experiences to be provided at the very beginning of education play a very crucial role in the development of child's personality and have strong bearing upon later education of children.

During the pre-primary stage, enormous changes take place in the children's physical growth and mental development. From a stage of dependence and helplessness the children gradually attain independence and become curious learners. Children should be provided with ample opportunities

for developing essential skills of identification, comparison, matching, naming, seriation, drawing and counting. With a view to instilling social awareness among children, child-to-child interaction and child – nature interaction should be promoted. Besides, organising activities helpful in developing positive attitudes, and habits for healthy social participation should be organized.

Primary stage

Primary stage of education has been visualized in two segments with inherent internal continuity. The first segment comprises Classes I and II, where children are just introduced to formal teaching and are at a stage of development which requires a smooth transition from informal and non-formal environment to a formal one. The second segment consists of Classes III-V, wherein the children get prepared to understand the environment and learn in a systematic way.

Classes I and II

The scheme of studies includes one language, Mathematics and the Art of Healthy and Productive Living. When children enter the primary stage, the pace of physical development becomes prominent – they become slimmer, more muscular and nurture new skills, which enable them to adjust effectively among their peers. Children now become better co-ordinated and their thinking is governed by the fundamental rules of logic.

Experiences to be provided for Art of Healthy and Productive Living will aim at the all-round development of the personality of the child. At this stage, the health, sports, recreational, aesthetic, creative and value development components are integrated with work education. Teachers will make use of locally available resources and harness community support, wherever, necessary. The objective should be to develop a habit of keen observation and accurate description of things around them.

Classes III to V

The scheme of studies includes one language, Mathematics, Environmental Studies and the Art of Healthy and Productive Living. At this stage, children develop better muscular co-ordination and acquire sensory discrimination. They develop a feeling of self and acquire the capability of knowing about themselves and the immediate environment surrounding them. The main objective here is to develop aesthetic sensibilities and skills of healthful living, besides providing a nurturing ground for love for labour, positive social attitudes and moral values so as to enable the child to be receptive to ideas of others with humility and sincerity in thought, word and deed. This will provide children with opportunities for their development into social human beings and dedicated and contributing citizens for the society and the nation.

Upper primary stage (classes VI to VIII)

The scheme of studies includes three Languages, Technology, Mathematics, Social Science and Sciences, Art Education, Health and Physical Education and Work Education. At the upper primary stage, several physical changes take place in children, as it is a period of biological transition from "childhood to adolescence". At the cognitive level, the children are gradually able to think logically in terms of all the hypothetical situations related to a particular problem. They also endeavour to establish an identity of their own. The learners are sufficiently mature to carry out strenuous activities, work involving higher skills and requiring closer neuro-muscular-coordination.

The purpose of work education at this stage is to orient students toward work and develop in them

respect for manual labour. The children should be encouraged to participate more intensively in production processes by understanding and executing well-designed projects. The methodology has to be based on observation, manipulation and work practice. The learning and mastery of skills becomes more important at this stage as compared to the primary stage. With a view to integrating science and technology with the life of community, emphasis should be laid on agricultural and technological processes, which may enable the learners to feel confident for their entry into the work force. The activities have to lead to enhancement in nutrition, personal and community health, sanitation, productivity and economic status of the community. Thus, activities may have three dimensions: observation of work situation and identification of task, participation in work situation, and preparing articles in large numbers. All activities need to be simple and enjoyable.

Secondary stage (classes IX to X)

The scheme of studies includes Languages, Mathematics, Science and Technology, Social Sciences, Art Education, Health and Physical Education and Work Education. At the secondary level, the characteristic developments that have taken place during the upper primary stage get strengthened. Thinking with abstract concepts, establishing social identity and giving importance to the peer groups increase considerably. Therefore, at this crucial stage it is also necessary to promote social interactions among children. The complexity of the activities and entrepreneurial skills need to be augmented keeping the nature of essential activities, by and large, the same.

In addition to Work Education, Pre-Vocational Education will get a prominent place at this stage. This will facilitate choice of the vocational courses at the higher secondary stage and help them acquire the knowledge and skills required for entry into the world of work. Need-based programmes to fit the dominant vocations of the area may be planned. Many skills can be taught through community services, which benefit the community as a whole, bringing the school close to its environment and helping the students become aware of their commitments to the school and the community. Co-operative activities can promote friendships, communal harmony and empathy for others. This is the stage for exploration, a student gets opportunity to undertake three to four work-related activities.

Higher secondary stage (classes XI and XII)

After the ten year common programme of studies, the stage is ripe for exposing the students to differentiated and specialised in-depth courses in humanities, social sciences, science, mathematics, commerce and the like on the one hand, and a variety of vocational courses on the other. Thus, according to one of the most important recommendations of the Kothari Commission, the curriculum at this stage is to be organised under two streams, the academic stream and the vocational stream. However, there is a need to ensure that appropriate linkages between the two are not only maintained but also systematically strengthened.

Generic vocational course

The final shape of the emerging India, to a large extent, will be determined by the commitment to work ethics in its schools. The country's philosophy and attitude toward work, its efforts to develop skills and healthy work habits, and its resolve to improve productivity in every walk of life would depend, mainly on the place it assigns to work education in schools, in and outside the classroom.

The generic vocational course may be linked with one or more subjects or it may be even

independent of subjects, if necessary. Special efforts, however, may be made to establish linkages with the subject areas and more particularly with the local environment and developmental activities in the neighbourhood. Taking up long term developmental projects in a village or city slums under the auspices of the school would provide practical experience and insights into the social matrix and economic problems and processes. It would help in generating socially desirable values. These developmental projects can be in the areas of adult education, afforestation, water management projects, road building, and the like.

Vocational course

Vocational courses cater to the requirements of varied and heterogeneous clientele. Majority of the pass-outs from the vocational stream will soon be entering the world of work. Students have to be given a large number of options based on the local needs, employment opportunities for wage employment and self-employment, their aptitude and interest, and the geographical location of the school. Students will, thus, get an opportunity to choose courses in the areas of their liking. Within each broad area, a number of courses for developing specific competencies are to be prepared. This can be done after a detailed analysis of the functions and tasks expected to be performed by a worker in that area. Some kind of effective mechanism for standardisation and quality control of the existing courses is needed to enhance the credibility of the vocational courses and the acceptability of the pass-outs among potential employers.

The nature of technological advancement and the highly competitive world demand continuous upgrading of knowledge and skills for every person in every walk of life. While opportunities for formal employment in organised sectors are now decreasing, they are increasing in service sector. Skills necessary for self-employment and entrepreneurship are to be provided to all the students entering the field of vocational education.

Vocational courses are designed as self-contained modules, specifying details of the theoretical aspects or basic scientific principles and the practical operational details. Schools will assess the need, relevance and potential of the courses before offering them to students. These courses in the formal school system would help in enhancing the employability of the students joining the world of work. The vocational education stream will also have to find its due place in alternative schooling especially in the open learning and non-formal systems for the dropouts, neo-literates and disadvantaged groups. In order to meet these requirements, multi-entry and multi-exit modular courses of varying duration will be required.

Competency based curricula have a greater role to play in ensuring excellence. They also help to provide comparability of standards, wherever desirable. If the country offers a first rate vocational education channel, its excellence will automatically attract a much larger number of students than at present. Linkages between schools and industries catering to the areas relevant to vocational courses will be an important feature of vocational education. The curriculum for such training is largely determined by the industry. Such a symbiosis can be developed by schools with both the organised and the unorganised industry.

ACTIVITY 2



Do you think the proposed vocationalization of various stages of education is practical? Justify your stand in about 150 words.

The general objectives of the 'Work Education Programme' are given as follows.

To help children:

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Psychomotor (skills)

To help children:

- select, procure, arrange and use tools and materials for different forms of productive work;
- observe and participate in various work practices;
- apply their knowledge and skills in solving problems related to productive work and social service situations;
- enhance productive efficiency enabling them to earn while they learn;
- use creative faculties for devising innovative processes and products;
- develop and apply skills to economic activities.

Affective (attitudes and values)

To help children:

- develop positive attitude towards work and workers;
- inculcate socially desirable values such as self-reliance, helpfulness, cooperativeness, working in team, perseverance, tolerance, etc.;
- develop proper work ethics such as accountability, regularity, punctuality, honesty, dedication, discipline, etc.;
- develop self-esteem through achievements in productive work and service;
- develop a deeper concern for the environment and a sense of belonging, responsibility and commitment to the society;
- promote entrepreneurial spirit and motivation to initiate and select an enterprise.

ACTIVITY 3



Based on the discussion on the various themes at different stages of work related education presented above, discuss to what extent can the objectives listed for cognitive, psychomotor and affective domains be achieved at different stages of education. Illustrate, by giving examples, in about 150 words.

Curriculum

Curriculum structure

The curriculum for the work education at primary, upper primary and secondary stage of education will comprise core and elective component.

Core areas

The core area has been broadly classified into two themes viz., *Personality and Community Development (Core Area I)* and *Enterprise Education (Core Area II)*. The themes have been further categorized into elements, keeping in view the needs of an individual, the family and the community and the role of an individual has to play in order to develop creative, cohesive and peace loving society. The elements have been categorized in to sub-elements. The sub-elements have been suggested according to the stage of education, keeping in view that the smooth transition and inherent internal continuity of competencies can take place.

The core component comprises those activities, which would provide pertinent life skills and experiences to an individual for performing life-supporting activities. It will also provide knowledge base for performing occupation-specific vocational activities. Further, it is envisaged that during the teaching-learning process a few generic competencies will be developed. Some of these are: decision making, critical and creative thinking, communication, application of current and emerging technologies, management of various resources, interpersonal relationships, empathy, coping with emotions and stress, managing personal health and safety.

The elements and sub-elements of Personality and Community Development are given in Table 1.1. The concepts in Enterprise Education, which can be explained through simple activities, integrated with various vocational or occupational activities are given in Table 1.2.

Table 1.1: Elements and sub-elements of personality and community development

Elements	Sub-elements	
	Classes I-II	Classes III-V
Food and Nutrition	Food groups Food hygiene Good eating habits	Food quality Age & food requirements Feeding during illness
Safety Health	Listing household items Safety measures at home, school and road Basic first-aid practices	Types of hazards and dangers Handling electricity, gas Safety measures in Games and Sports Safety rules during travel First-aid practices
Environmental Health	Our living environment Care and maintenance of personal items Common health care practices	Health risks Cleanliness and Maintenance at home and at school Types of waste materials Garbage and its disposal
Community health	Healthy home living Healthy school living	Rights and Responsibilities of citizens, Social customs and traditions Care of nature Care of peers and elders Family Structure, Our Community Relationships at home, school and community
Physical Health	Personal hygiene Simple physical exercises	Physical exercises Gymnastics Yogic exercises
Aesthetic Development	Sensory experiences Drawing Colouring Singing House decoration Classroom decoration Group songs Theatrical art Dance Painting	Dance Making Models Mime Collage Drama Painting Rangoli Alpana Puppets House decoration Classroom decoration School decoration Appreciation of poems and stories
	Classes VI-VIII	Classes IX-X
Food and Nutrition	Food Nutrition Malnutrition and disease Food borne illness Preparation and storage of food	Balanced diet, Food preference , Sanitation in food establishments Food advertisement Laws and rights concerning food Food preparation, processing and marketing
Safety Health	Coping with emergencies Using protective devices Safety measures at workplace Life saving practices	Disaster and its management Risk control management Accidents: legal procedures Safety regulations

Environmental Health	Communicable and non-communicable diseases Effect of diseases on individual, family and community, Prevention and control of diseases and ailments	Types of pollution Minimising Pollution Recycling waste Industry and Pollution control Environmental legislation
Community health	Social problems Personal, family and community expectations Coping with emotions	Social behaviour Social and welfare organizations Labour laws and rights Work Ethics Conflict and its resolution
Physical Health	Yoga, meditation Modern physical exercises and gadgets Outdoor activities	Coping with physical and emotional changes Requirements at workplaces
Aesthetic Development	Posters, Diagrams Simple models Participation in literary activities Community aesthetic development	Audio and video recording Photography Script writing Computer aided designing Community aesthetic development
Value Development	Quality consciousness Sense of perfection Positive attitudes Creativity Dignity of Labour	Social Service Discrimination Patriotism Culture appreciation Duty to the community

Table 1.2: Concepts in enterprise education

Classes	Concepts
I - II	Work Choices Wants Needs Interdependence Goods, Services
III - V	Money Income Expenses Saving Buying Selling Profit
VI - VIII	Resources – natural, human, capital Employment – self and wage Enterprise Entrepreneur Productivity Demand Supply Consumer Producer

IX - X	Careers Business opportunities Production Quality Work & professional ethics Division of Labour Basics of setting up an enterprise
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Elective component

The elective component comprises those production and service-oriented activities, which are directly related to various vocational opportunities in the area of

- Agriculture and Allied areas
- Engineering and Technology
- Business and Commerce
- Home Economics
- Humanities

A list of various suggestive elective activities in the above mentioned areas are given below.

Elective activities

(a) Agriculture and allied areas

- Gardening
- Bee-Keeping
- Mushroom cultivation
- Vermicomposting
- Protected cultivation
- Fish production
- Backyard poultry
- Domestic animal rearing
- Milk and milk products

(b) Engineering and technology

- Repair and maintenance of simple electronic gadgets
- Repair and maintenance of simple electrical gadgets
- House wiring

- Maintenance and repair of scooter and motorcycle
 - Repair and maintenance of power thresher
 - Repair and maintenance of plant protection equipment

- Computer applications

(c) Business and commerce

- Book-keeping
- Office procedure and practice
- Typewriting

(d) Home economics

- Commercial art
- Interior decoration
- Batik
- Tie and dye
- Meal planning and food preservation
- Toys and doll making
- Tailoring, knitting and embroidery
- Bakery & confectionery
- Preparation of paper items
- Preparation of specific items
- Graphic (block printing)
- Macramé work
- Paper mache
- Clay modeling
- Terracotta

(e) Humanities

- Still photography
- Videography
- Advertising



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National focus group on work and education has suggested:

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It has proposed that *work-centred pedagogy be the central organising theme* for reconstruction of the present education system from the pre-school stage up to Class XII. Work will be interwoven in the curriculum for the purpose of:

- (a) acquiring knowledge that neither alienates a child from her/his social ethos nor de-empowers her/him from playing a proactive role in social change;
- (b) building values and the necessary strength to stand by them, especially during crisis, through co-operative functioning in peer teams and relating them to community work and social action; and
- (c) promoting multiple skill formation within a generic framework and related to livelihoods/vocations emerging from the socio-economic context of the children, keeping in mind the rapid changes that the context itself is undergoing in a global perspective.

As the child matures with age, the work-centred pedagogy will be pursued with increasing complexity but invariably tempered with the required flexibility. Both of these curricular dimensions viz. complexity and flexibility will be guided by the universally acknowledged principle of moving from local to global contexts. A *common core curriculum* involving work-based pedagogy initially until Class X and, within the foreseeable future, up to Class XII for all children, will be the objective. Curricular development will be aimed at developing the concept of citizenship in a democratic, secular and egalitarian society, in accordance with the broad principles enunciated in the report of the Education Commission (1964-66). A set of work-related generic competencies will be pursued at all stage of education – from pre-primary to higher secondary – and will also inform the construction of evaluation parameters and designing of the system of assessment, including the public examinations. This will provide a firm foundation for building up a programme of ‘*Vocationalised Education*’ (to be distinguished from ‘*Vocational Education*’) at the secondary as well as the higher secondary stages.

Basic features of work-centred education

Introduction of a universal programme of ‘work-centred education’ is based on the following guiding principles:

- Integrating productive work along with all other forms of work (e.g. activities, experiments, surveys, field-based study, social action, engagement with the community etc.) in the *core curriculum* as a pedagogic medium – from the pre-school stage to the higher secondary stage for all children.
- Making participation in productive work under conditions approximating to real life situations an effective pedagogic medium for acquiring knowledge, building values, skill formation and promoting critical thinking, creativity and other *generic competencies*
- While correlation between work and subject-specific knowledge will be optimized, the emerging challenge to the value-framework of the children will invariably remain a central concern. Skill formation related to livelihoods/vocations relevant to the changing socio-economic conditions will be pursued with increasing complexity (i.e. varying from local to global perspective) but with the require flexibility, as the child matures with age.
- The colonial concept of prescribed textbooks will become superfluous, though theoretical material, concept papers and contextually prepared teachers’ guides would be necessary for the teacher educators, teachers and the school authorities. Instead of textbooks, each school

will have a rich library (to be supplemented with IT, wherever possible) of resource material relating to all knowledge disciplines and other education-related texts. This material will be readily accessible to the children (and teachers) for consultation as they proceed with productive work in order to enable them to seek answers to the questions that arise in their minds from time to time. These queries would reflect the nature and the stage of their engagement with the physical and social world around them. The path to knowledge will thus become entirely open-ended, non-linear and contextual.

- Evaluation parameters will be reconstructed to test the attributes that develop amongst the children as a result of following the pedagogy of work-centred education. This is expected to lead to a radical departure from the prevailing book-centred, information-based and recall-oriented assessment system in the schools as well as in the public examinations and competitive entrance tests in higher education.
- The curriculum of all teacher education programmes will have to be redesigned on the principle of cultural and epistemic transformation of both the teacher as well as the teacher educator.
- The school would have to be duly empowered to carve out 'work benches' or 'work places' in the neighbourhood where the students could go to learn through work. Such an approach has three advantages viz. (a) it will minimise capital investment (or make it unnecessary altogether) in the school; (b) the students will have access to the latest available technology and techniques at the 'work benches', rather than getting stuck with outdated technology at the school; and (c) what the children learn would be placed in their local contexts and, therefore, be subjected to critical self-examination and reflection.
- The school system will create an appropriate space for engaging the farmers, artisans (including those who have migrated to urban areas), health practitioners (including the village *dais*), persons experienced in animal husbandry, poultry, fishing, and medicinal herbs, mechanics, technicians, folk artists etc. as resource persons or invited teachers with the aim of utilizing their varied expertise, skills and insights (this will require appropriate action by NCTE as well).
- The present school day and school calendar will have to be made flexible and contextual in order to accommodate a work-centred curriculum. A proactive and structured role of the PRIs, VECs, *gram sabhas* and DIETs can not be over-emphasised in this regard.
- Instead of the present arrangement of dividing the school into fixed classes and periods, the school will need to be reorganised in terms of multi-level flexible and dynamic groups of children, encouraged to follow a negotiated time-frame. A group of children will be constituted on the basis of their common knowledge orientation and comparable skill levels, with a couple of them placed in the group to play a leadership role in the learning process. Such a group will pursue a common learning objective for a while as a collective, disband itself after the objective has been achieved and then regroup with other children to pursue a new objective (the model developed by *DIGANTAR*, Jaipur).
- It is on this bedrock of work-centred education that 'vocationalised education' (to be distinguished from *Vocational Education and Training*) will be built up at the secondary/higher secondary stages for all children. Skill development for livelihoods/ vocations in this framework will be correlated with knowledge acquisition and building of values, rather than being viewed as an isolated objective.

- Such a work-centred programme of education will also lay a rational basis for the students to seek a dignified option of vocational education and training (VET) course *outside* the school system with the objective of pursuing a viable vocation/ livelihood in their lives.

ACTIVITY 5



Critically examine in about 100 words the recommendation of the National Focus Group on 'Work and Education' about work-centred education.

Based on the above, discuss the following in about 100 words each.

- (a) *How do they differ from the earlier concepts of work education/work-centred education/ socially useful productive work (SUPW)?*

- (b) *If implemented in true spirit, what will be its impact on the present state of school education where more than 80 per cent students leave schools at different stages?*

Summary

We discussed in this unit the developments in work education before and after independence; the conceptual framework and, objectives of work education, various concepts like Art of Healthy and Productive Living, Work Education, Pre-Vocational Education, Generic Vocational Course, Vocational Education, work education in scheme of studies, Preparation for Primary Education (2 years), Primary Stage, Upper Primary Stage, Secondary Stage, Higher Secondary Stage, Generic Vocational Course, Vocational Stream, objectives of work education, curriculum structure, elements and sub-elements of Personality and Community Development, concepts in Enterprise Education, elective component and recent development in work centered education in the National Curriculum Framework. In this process, PSSCIVE (NCERT) has emerged as a unique institution in the country and as a apex organization in the field of work centered /vocational education.

Suggested readings



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Questions for critical reflection

1. What are the major objectives of work education/work-centered education? How do you relate these objectives to the present scenario?
 2. Can the concept of work-centered education be implemented in the present school education system? Explain this along with its methodology.
 3. Vocational education is the need of the hour. What initiatives should be taken by the school in the country in this regard?
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The Changing Society and the Consequence of Vocational Education and Training

▪ V.S. Mehrotra

UNIT

2

Introduction

In the previous unit you read about work-centred education. In this unit we shall discuss the role and consequence of 'Vocational Education and Training' (VET) in the changing society, which is tremendously influenced by the liberalization, privatization and globalization (LPG). VET refers to an organized education and training programme that leads to the development of knowledge, skills, and abilities of an individual that are important for economic and social activities. It is now universally accepted that people with adequate education and skills training are more capable to adopt new technology and become more productive than people with just basic knowledge. Universality of VET, which of course is affected by various factors, can help eliminate economic disparities, make general education more relevant, empower marginalized and disadvantaged groups, reduce unemployment, enhance national productivity and build social order.

The UNESCO's International Commission Report (1996), popularly known as Delors Commission Report, integrates education and training by identifying the four pillars of education which are 'learning to know', 'learning to do', 'learning to be' and 'learning to live together' (UNESCO, 1996). The recommendations of the Delors Commission manifest VET's recognition of the role and importance in development of human resource through a holistic approach to education and training. In India, and in most other countries too, VET programmes are delivered by public, private and non-government providers in classrooms and workplaces through schools, colleges, universities, industries, enterprises, etc., in a face-to-face, as well as informal or distance mode for different qualifications and work-experience to a wide variety of target groups - students, school leavers, adults, youth, child labour, disadvantaged section, persons with disabilities, ex-servicemen, etc. VET may be job specific or directed at a broader range of occupations. It takes a variety of forms in different countries. It can be organized as a pre-vocational education at classes IX and X to prepare children for transition to VET programme at higher secondary level. At 10+2 level, it is offered as vocational education, which leads to a certificate. Completion of VET at 10+2 qualifies a youth for a skilled job, or enables him/her to start an enterprise. Continuing VET ranges from short training courses to one to three years programmes, offered by Government as well as private institutions or non-government organizations (NGOs).

There is a growing realization that reforms in VET are needed to address the societal challenges and that the changing face of the VET should contribute to the achievement of the economic and societal goals of greater democratization and social, cultural and economic development of a nation, by developing the potential of all individuals, both men and women for active participation in the 'world of work'. VET should address the issues of equity and efficiency in education and training system and therefore, provide access to a large number of people who want initial training, and some others who want continuous or further training for a decent earning and sustainable living. According to the European Commission (2006) equity is viewed as the extent to which individuals can take advantage of education and training, in terms of opportunities, access, treatment and outcomes and the equitable systems should ensure that the outcomes of education and training are independent of socio-economic background and other factors that lead to educational disadvantage and that treatment reflects individuals' specific learning needs.

This unit is intended to provide a bird's view of the various emerging challenges, which occur due to societal and economic changes in India and other countries. It deals with the sequence of events that lead to the changing skills demands in various countries. The unit outlines a variety of powerful technological and economic factors that are combining to change the way work is done and describes the profound implications these changes have for the VET requirements of workers. It provides in broad terms the various reforms, which have been adopted by various countries, with a focus on Asia Pacific countries and India, to highlight the need for bringing about necessary reforms in Indian VET system. The paradigm shifts are needed not only to face the challenges posed by the changing face of the society, but also to re-orient VET to address the various issues that have cropped up during its implementation over these years. These shifts have been discussed in detail to develop an understanding of the importance of various dimensions of VET. At the end of the unit, you should be able to:



Learning outcomes

After going through this unit, you should be able to:

- describe changing social trends occurring due to rapid technological and economic advancement;
- identify the key characteristics of the new technological and economic age and how knowledge is seen as the central factor for enhancing the productivity and performance of employees and organizations;
- explain the various factors that assume great importance in bringing about necessary transformation and reforms in the strategic role of VET for addressing the various societal challenges in the new technological and economic age;
- distinguish between the basic employability skills needed to help build the capacity of the workforce that will make them capable to enhance productivity; and
- analyse the importance of quality VET in meeting the standards of excellence, relevance and equality of opportunity for all.

The challenges ahead

Learning has become lifelong and its foremost skill has become 'learning how to learn'. Pathways from school into the labour force or tertiary education are changing. In the past, people tended to move from school into full-time work or tertiary education and training. From tertiary education and training they moved into full-time work. However, rapid technological and economic changes have led to a continuous need for re-skilling of the workforce. Economic growth now depends heavily on the ability of the workforce to constantly improve its skills and retrain in new skills. As a consequence, people now increasingly move backward and forward between different forms of education and training and different forms of work (part-time or full-time work). It is now more common for people to undertake education and work simultaneously. Globalisation, which is 'a process that widens the extent and form of cross-border transactions among people, assets, goods and services and that deepens the economic interdependence between and among nations' (Lubbers, 1998), exercises significant influence upon VET. According to Tessaring (1998) the dematerialization of economies, firms, strategies of outsourcing non-core functions together with the emergence of virtual enterprises and global networks realized by Information and Communication Technology will have serious impact on employment, division of work and on

the nature and contractual arrangements of jobs. It may increase self-employment and the need for appropriate training in this field. He also cautioned about the serious dangers for social insecurity and exclusion. The task of VET is to ensure that countries have the desired trained labour force with provisions for equivalent qualifications systems, and unified accreditation and certification systems across the borders for workforce mobility.

Let us now examine the changes that have taken place in the global society – beginning from the agriculture wave to the neo-technology revolution, which has created demand for the knowledge workers with both ‘soft’ and ‘hard skills’ rather than workers with just hard skills.

The technological age

Alvin Toffler (1981) identified three ages-or ‘waves’ in world history. Toffler’s first wave was the agricultural revolution from about 8000 B.C. to 1700 A.D. Toffler’s second wave is the industrial age from 1700 to 2000. A major characteristic of the industrial age is separation of goods production from consumption (Tjaden, 1995). Toffler’s third wave began in the United States in the mid 1950s, when ‘white collar and service workers outnumbered blue collar workers’ (Tjaden, 1995). The third wave comprises the transition to the information age. The key characteristics of industrial and information age enterprises are given in Table 2.1. Lewis Mumford described the neo-technic revolution, or creation of new technology by institutional research and development (Mumford, 1970). This ‘revolution’ began with initiatives during the Second World War and the ‘space race’ to apply scientific research to military (and later consumer product) development. A central feature of the neo-technic revolution is that employees work in a mechatronic environment, using highly precise, electrically powered mechanical equipment, increasingly commanded by sophisticated computer programmes (Wilson, 2000). The mechatronic environment requires workers to possess multiple skills, learned by cross-training, or training in more than one ‘traditional’ specialization, such as training in repair and maintenance of both mechanical and electrical/electronic aspects of industrial robots (Wilson, 1997). Three-dimensional computer aided design (CAD) by digitizing systems, known as computer-assisted manufacturing (CAM) (Flint, 1998) is replacing the traditional machines.

Table 2.1: Key characteristics of industrial and information age enterprises

Industrial organizations	Information age organizations
Mass production	Mass customization
Labour serves machines or tools	Tools and machines serve labour
Labour performs repetitive tasks	Labour applies knowledge
Command and control management structure	Common control management structure
Capital intensive	Knowledge intensive
Capitalists own means of production	Labour owns means of production
Capital is the primary driver	Knowledge is the primary driver

Source: Tjaden, 1995.

The new economic age

The challenges of skills shortages in the LPG economy has emerged due to changes in technology and financial markets, emergence of global markets for products and services, international competition and new forms of business organization, strategies and management practices. The 'new vocationalism' emphasizes the need for all educational institutions to contribute to the national economic imperatives and for the most part is embedded in human capital theories of economic performance. These theories promote the idea that economic performance is intimately connected to the level of skill and ability of workforce, and remain a common feature of the educational discourses of many Governments worldwide (Papadopoulos, 1996; Chappell, 2003). The new economic age, according to various contemporary commentators, has emerged due to the following:

- an increasingly globalized competitive market for both goods and labour (Thurow, 1996);
- the dependence of increased productivity on the speedy application of science and technology, particularly in the area of microtechnology, biotechnology and microelectronics (Levett and Lankshear, 1994);
- the importance of information technology in the processes of production, distribution, consumption and exchange, and the speedy creation and application of 'new knowledge' (Castells, 1993);
- the crucial role of 'symbolic analysts' in post-industrial economies, which are moving away from material production to information processing and cultural production (Reich, 1993).
- the replacement of mass production principles, with flexible specialization and niche marketing (Cope and Kalantzis, 1997); and
- initiation of a labour market transformation that requires new workers having the knowledge, skills and dispositions needed by 'new forms of work' (Chappell, 2003).

Knowledge is now seen to be a central factor for productivity and the performance of employees and organizations; for organizational capability, innovation and creativity (Johnson, 2005). Economic literacy, which involves gaining an understanding of economics and then using that knowledge to make informed choices is becoming important in the knowledge economy. Raising skills and economic literacy levels of poor performers through VET should enhance the per capita productivity. Therefore, the type of worker required has changed from one merely following orders to knowledge workers, and firms have become 'learning organizations'. A 'knowledge economy' is an economy that creates, disseminates and uses knowledge to enhance its growth and development. It is a phrase that refers to the use of knowledge to produce economic benefits. Knowledge has developed currency in the workplace (Gee *et al.*, 1996) and the emergence of knowledge industries, knowledge managers and knowledge workers is giving it a new status (Johnson, 2005). According to the International Labour Organization (ILO), the overall goal of the global economy should be to provide opportunities for all people to obtain decent and productive work in conditions of freedom, equity, security, and human dignity.

ACTIVITY 6



Suggest various measures that could be adopted for bringing about necessary reforms to meet the challenges posed by the techno-economic changes discussed above. Answer in about 100 words.

Vocational education and training

The scenario of VET systems internationally, as also in the Asia-Pacific region and in India is briefly presented below:

The international scenario

Canada and Australia have 'more open labour markets', and training systems which emphasize 'the development and provision of so-called core skills or key competencies', and Germany, Austria, Switzerland and Denmark have 'strong apprenticeship traditions' and often 'express strong reservations about the development of modular qualifications systems, seeing them as having the potential to encourage young people to leave education too early with qualifications that are too narrow or too incomplete (OECD, 1998). In countries, which include United Kingdom, Scotland, Canada, Australia, New Zealand, Thailand, Singapore, Republic of Korea, China and Sri Lanka, reforms have been occurring to make VET attuned to the contemporary needs of the economy and society.

The Copenhagen Declaration made in 2002 on enhanced European cooperation in VET laid down plans for building a European Labour Market through trans-national recognition of vocational qualifications and improving national VET systems (Coles and Oates, 2004). This process culminated in the development of a European Qualification Framework (EQF), (European Commission, 2006), intended to serve as a mechanism enabling comparability between national qualification systems and them enhancing transferability and mobility of labour (Brockmann, 2007).

The Asia-Pacific scenario

Park (2005) summarizes the VET reforms made in the Asia Pacific countries as follows:

Reforms	Description of Reforms
Standard Skills	Some countries are moving toward national qualifications systems as a means to raise occupational standards and facilitate labour mobility. These standards, benchmarked from existing national standards describe the abilities, skills, knowledge, and operations to be possessed by an individual for a specific occupation, industrial process, or technological application. The recognition of national skill competencies/qualifications in the region and in the world will spur the free movement of skills while focusing on common vocational standards. This would help the workers increase their marketability and job mobility through demonstration of skills they have acquired in any context. It can also help the industries boost their overall productivity and competitiveness by applying standards of excellence.
Accreditation and Certification	A regional accreditation and certification system is in response to the inevitable transmigration of workers and emergence of multicultural environment. With this initiative, vocational education and training providers in the member countries are encouraged to adapt the best international practices for their institutions.
Labour Market Information System	The Labour Market Information System (LMIS) tracks and analyses the economy of a country by determining future workforce training needs, identifying the availability of labour, verifying the prevailing wage rates, and discovering potential markets. LMIS also finds its value to local and regional planners in the academe as well as in the industries and businesses to help target locations, seek ways of attracting and retaining skilled workers, or assess the scope and size of potential markets. Labour unions also find these studies useful for determining comparable wage and compensation levels, local working conditions and training needs.
Enhancing International Networks	The development of sustainable human resources requires concerted efforts and approaches from all national, regional and international training organizations. With globalization of markets and economies, the challenges are not specific to one country or one institution. Hence strong network and partnership among the regional and international organization and institutions is required in the development of sustainable human resource.
Employment Supporting System	Employment supporting system is a network system that provides employment, education, and training services. Often established as one-stop career centers, these provide wealth of information and assistance in finding a job; information and services related to employment, training, and education links; and information and claims on unemployment insurance, disability insurance, employment and training, labour market information, and employment taxes.

The Indian scenario

Currently, about 70 per cent of the people live in more than 7,00,000 villages of India, and the remainder in more than 200 towns and cities. Agriculture employs 60 per cent of workforce in India and is a source of livelihood for 650 million people. With the current population of 1 billion people, India is a home to about 260-290 million poor and over 100 million rural poor are subsistence farmers dependent on rain fed agriculture. The service sector employs about 19 per cent of the workforce, although the contribution of this sector to GDP is much higher than the agriculture sector. Indian population is expected to reach 1.3 billion by 2020 and will have 47 million people in the working age population. This growth will result in unprecedented demands for additional food, land, water, transportation, infrastructure, energy, health care, and

environmental cleanup. In addition, with the growing urbanization and increasing quality consciousness the market for organically produced food and processed food will grow rapidly. The country is required to double the food production by 2020, for which sustained and directed efforts have to be made to improve the productivity and efficiency of both farm and non-farm workers, keeping in view their social and cultural needs.

About 54 per cent of Indian population is below the age of 25, making India one of the youngest nations in the world. In order to prepare young people for 'life' and 'work' in a rapidly changing world, education and training system need to be re-oriented to impart a broad repertoire of life skills. These skills should include the key competencies, non-occupation-specific practical capabilities, Information and Communication Technology (ICT), the ability to learn independently, to work in teams, entrepreneurship and civic responsibility.

Indian industries continue to face skills shortages and recruitment and retention difficulties. Skills shortages occur for a variety of reasons, which include: (i) growth of new industries with few ready-skilled people available; (ii) relocation of new industries into different regions with a different skills base; (iii) location of industry, or project-based work in rural or regional areas, with a small skills base; (iv) technology changes and new methods being adopted within an industry; and (v) changes in skills needed to successfully undertake trade and business.

A recent employment potential study conducted by the Confederation of Indian Industry (CII) for 36 sectors has estimated that an additional 2.5 million jobs would be created in the automotive sector, while the financial sector could employ another 1.1 million people. The construction industry could employ 9.9 million more people, whereas the defence equipment sector sees the possibility of generating only 160,000 jobs. Employment potential in banking and financial services sector is 1.1 million jobs. Other important sectors where high employment is possible are oil and gas (2.3 million), gems and jewellery (3.16 million), healthcare (6.1 million), horticulture (2.6 million), *khadi* (1.9 million), media and entertainment (1.0 million), retail (9 million), tobacco and tobacco products (6.4 million), tourism (19.6 million), railways (1.9 million), State transport undertakings (2.3 million), and food (2.1 million). An additional 10-48 million jobs could be created by servicing overseas consumers in services, such as medical, tourism and education (AIMA 2003). Thus there is a need to prepare skilled human resource for all these sectors in the years to come.

Several VET pathways for different target groups are available in the formal and non-formal education system. Craftsmen training of 1 to 2 year duration is offered in industrial training institutes (ITIs) under the aegis of the Ministry of Labour and Employment for students who have passed class VIII or class X. Polytechnics are offering technical education programmes of 2 to 4 years duration. *Krishi Vigyan Kendras* (KVKs) are offering vocational training programmes of different duration to farmers. Universities and colleges are also offering vocational electives at the tertiary level along with the Science, Arts and Commerce subjects. Industrial Microbiology, Bio-technology, Biological Technique and Specimen Preparation, Seed Technology, Sericulture, Industrial Fish and Fishery are some of the vocational electives offered through colleges and universities (IAMR, 2001).

Pre-vocational education at the lower secondary stage was introduced in 1993-94, primarily to impart training in simple marketable skills to the students of classes IX and X. It is meant to develop vocational interests and to facilitate students in making a choice of vocational courses at the higher secondary level. Under the Vocational Education Programme (VEP) higher secondary level, a variety of vocational courses of two years duration in Agriculture, Business and Commerce, Engineering and Technology, Health and Paramedical, Home Science, and Humanities are offered at the Schools to meet the skills requirement of the organized and unorganized sector. The National

Institute of Open Schooling (NIOS) and the Indira Gandhi National Open University (IGNOU) are offering certificate or diploma courses in various trades.

Schools are offering more than 150 vocational courses at +2 level, and Industrial Training Institutes (ITIs) are offering more than 98 vocational trades (49 engineering and 49 non-engineering trades). NIOS is offering more than 85 vocational courses and IGNOU is offering more than 70 vocational courses through the open and distance learning system. In addition, there are large numbers of non-formal VET Institutions, which are offering short duration skill development courses, which could number to 300 vocational courses. There is, however, a need to offer vocational courses for more than 1500 existing and new vocations in the service and small and medium enterprise sector for preparing people for enhancing the productivity.

In the non-formal education system, non-government organizations (NGOs) and specialized VET institutions are offering vocational courses of different duration. These VET programmes are sponsored by Ministry of Human Resource Development (MHRD), Ministry of Labour and Employment, Ministry of Agriculture, Ministry of Small Scale Industries, Council for Advancement of People's Action and Rural Development (CAPART), Ministry of Non-conventional Energy Sources, Department of Science and Technology, Ministry of Rural Development, Ministry of Health, Ministry of Information and Broadcasting and Ministry of Social Justice and Empowerment, etc.

The training delivered through most VET programmes in India is still limited in scope, and put together does not cater to the VET needs of large number of youths (boys/girls) who need them to become employable. The VET provided by different ministries and different organizations, have no linkage with each other. Each is operating in isolation. Majority of such courses does not have backing from the Industries, and hence employment to the graduate of VET is not a surety. With limited competencies acquired, these graduates do not have capabilities to establish their own enterprises, nor any support system exist to help them in this venture. Therefore, VET programme with limited utility and less market value have had low social acceptability. Radical reforms are needed in the Indian education and training system to suit the skills requirements of the local market, the Industry and global economy.

ACTIVITY 7



In the light of development taking place as a result of LDP of economy and reforms in VET taking place in different regions of the world suggest what shape should be given to VET programme in India? Discuss in about 100 words.

Paradigm shifts in VET

The existing VET system must be reformed to suit the needs of the industry and learners. There is a growing realization that radical changes and innovations are needed to bring about major shifts in the planning, delivery, management and monitoring of the VET system. Some of the major shifts that are needed for bringing about systemic reforms in VET are given below:

S. No.	Major Shifts	
	From	To
1.	Supply driven VET system	Demand driven VET system
2.	Preparing skilled manpower for 'industrialized economy'	Developing human resource for 'knowledge economy'
3.	Focus on pre-service training	Focus on life-long learning
4.	Rigid selection of students based on fixed criteria	Open and flexible system, focus on aptitude, interests and need.
5.	Use of conventional tools and methods for teaching and learning	Use of Educational Technology and Information and Communication Technology for teaching and learning
6.	Prescribed pedagogy	Flexible and innovative teaching styles
7.	Emphasis on classroom learning	Emphasis on experiential, work-based and contextualized learning
8.	Emphasis on assessment of cognitive skills	Emphasis on performance based learning outcome, with problem solving approach
9.	Specialization in one skill	Multi-skilling for more than one task
10.	Skill recognition based on training period and examination	Recognition based on prior learning and competencies acquired through training
11.	Rigid framework for training, with fixed entry and exit	Flexible framework for training, with multiple entry and exit
12.	Public funded VET model	Public-Private Partnership model

From supply driven to demand driven VET

Supply denotes the potential of people who are inclined to work and are characterized by individual profiles such as gender, age, qualifications, etc. Demand for labour is equivalent to the number of available jobs and their profiles e.g., sectors, occupations, work tasks and position within the firm (Manfred Tessaring (1998). Unemployment is particularly high due to the mismatch between what is taught in education and training institutions and that required by the 'industry'. Industry

here is taken as those bi-partite groups who speak on behalf of employers and employees within a particular industry grouping (Billett, 2000). Defining the demand side of VET, Billett (2000) has summarized input into curriculum development for vocational education into the following four levels:

Occupational level

The central function is to provide general (not specific and highly detailed) statements of intent at the aims and goal level of formulation, identify content appropriate for the occupation, potentially in strands that make distinct different parts of the occupational sector. It should include the following:

- an occupational basis for organizing vocational education curricula stranding, negotiated at national and regional levels;
- identification of broad statements of educational intent (goals and aims);
- identification of recommended course content;
- identifying career pathways for and options within vocational education;
- accrediting a national certification process (such as external examination).

Enterprise level

Enterprises desire for programmes that specifically meet their needs through:

- provision of vocationally-based courses, customized to approximate vocational activities within enterprises;
- the negotiation/refinement of both content and outcomes;
- support and facilitation to participate in vocational education and/or develop a capacity to provide quality in-house programmes.

Regional level

Each region has need of vocational education that may be specific to that region. For regions, needs include:

- local planning;
- local facilitation of courses to address the needs of local enterprises, groups of enterprises and local providers of vocational education programmes;
- tailor made provisions to enterprise needs;
- negotiation of content and refinement of outcomes.

Individual level

Individual needs should be addressed through:

- access to courses;
- career pathways identified for lateral & vertical mobility;

- provisions which address local enterprise needs;
- accessible and supportive teachers who address individual student's needs;
- a strong focus on the development of skills that have a transferable base;
- information about courses.

The demand for vocational skills is usually inferred from the number of people, which are employed and who would be required in various occupations. Assessment of the demand for skilled manpower in different industries/sectors is a difficult task as even the best forecasting model provides only a bleak picture of the projected skilled manpower for a specific period. Since, people constantly change their jobs, migrate from one place to another, move in and out of the workplace and change the number of hours they work for a job, it is difficult to accurately assess the skilled manpower demand. In addition, the growth of any industry/sector depends largely on the government policies and investments being made, which in turn directly affects the manpower requirement.

Whenever projects have succeeded in building close linkages between employers and the training system, the resultant training has become cost-effective and relevant to the needs of the market (Canagarajah *et al.*, 2002). A Labour Market Information System (LMIS) is needed to provide necessary information on the skilled human resource needs in the economy, etc. Based on the labour market analysis, skill requirements in different sectors of economy need to be identified. Identification of skill standards that will guide the direction of training for entry-level training should be done based on the data made available through the LMIS.

ACTIVITY 8



Define the concept 'Supply driven to demand driven VET'. How can the demands be determined in the context? Answer in about 150 words.

[illegible]

From classroom to work-based learning

In most countries VET is viewed as the tool for providing seamless transition from school to the 'world of work'. Work-based learning links classroom instruction with structured work experiences by providing a practical context for academic subjects and by grounding course work in practical realities of work (Stern *et al.*, 1995; Olson, 1996; Griffith, 2001). It is seen by its proponents to be most effective when it involves work integrated learning. This is a key feature of sandwich degrees and one of the main reasons for "Sandwiching" the work placement between periods of on-campus learning. Students are expected to take knowledge into the workplace and to bring back workplace knowledge into the classroom after completing their work placements (Coll *et al.*, 2003). Some countries have introduced VET reforms that endeavour to integrate workplace-based learning and training into the curriculum.

The discourses on 'learning in the workplace' (Marsick and Watkins, 1990), 'learning organisations' (Senge, 1994), 'work based learning' (Boud and Solomon, 2001) and 'informal learning' (Garrick, 1998), all promote learning that takes place at and through work and learning unmediated by educational institutions or practitioners (Chappell, 2003).

Resnick (1987) has offered four propositions that are helpful in explicating mechanisms of work-based learning viz., (i) Contextualized reasoning versus symbol manipulation, (ii) Group versus individual effort, (iii) Book knowledge versus Tool manipulation knowledge, and (iv) General skills versus situation-specific competencies.

Contextualised reasoning versus symbol manipulation

Work-based learning connects behaviour patterns of students to objects and events in the workplace, whereas classroom learning uses symbols with tenuous connection to objects and events. The direct engagement of students with events, people and objects in the workplace reveal the realities of jobs and careers, including the necessary knowledge skills and abilities and how they relate to one's knowledge, skills, abilities interests and self-concepts (McCharen, 1995).

Group versus individual efforts

Whilst success in the classroom is judged exclusively on individual performance, the success in the workplace is often judged on task performance requiring communication, teamwork, coordination of people's activities and the sharing of knowledge, information and resources.

Book knowledge versus tool manipulation knowledge

Classroom learning rewards the recall and manipulation of book knowledge, without the external support of books, notes, calculators, computers, etc. In contrast people at the workplaces rarely work without materials and tools that support completion of job tasks. Work-based learning provides students the occasions to identify and use tools that aid task completion.

General skills versus situation-specific competencies

When learning occurs in the real situation "implicit knowledge and work-specific competencies are gained by the learner. Regarding implicit knowledge, learning theorists have shown that

experience in the learning context conveys an additional meaning integral to problem-solving strategies that would otherwise be unknown (Birch, 1945). Regarding situation-specific competencies, behavioural learning theorists have demonstrated that behaviour is more readily acquired when the individual acts in the environment in which the expected behaviour patterns are to occur (i.e., stimulus-response bonds) and when the individual experience the immediate consequences of his/her behaviour i.e., in view versus imagined behavioural modification (Reese *et al.*, 1996).

The framework of current education in India is characterized by indoor education, teacher-centric teaching, rote learning and examination-oriented evaluation. The National Curriculum Framework-2005 (NCF-2005), prepared by the National Council of Educational Research and Training (NCERT) has placed special emphasis on fostering partnerships between the school system and other civil society groups, including non-governmental organisations and teacher organisations for bringing about systemic reforms for linking learning with work from the primary stage upwards, so that work transforms knowledge into experience and generates important personal and social values, such as self-reliance, creativity and cooperation. It has also recommended that at the senior level, a strategy to formally recognize out-of-school resources for work should be formulated to benefit children who opt for livelihood related education. Keeping in view the various problems in teaching-learning, the NCF-2005 has provided the following 'guiding principles' for bringing about systemic reforms in the Indian education system:

- connecting knowledge to life outside the school,
- ensuring that learning is shifted away from rote methods,
- enriching the curriculum to provide for overall development of the children rather than remaining text-book centric,
- making examinations more flexible and integrated into classroom life, and
- nurturing and over-riding identity informed by caring concerns within the democratic polity of the country.

From vocational training to vocational education and training

Essentially, the goal of education is 'to create independent problem solvers with sufficient depth of understanding'. In contrast, the goal of training has been 'to teach people to follow prescribed procedures and to perform in standardized manner' (Gray and Herr, 1998). At the upper secondary level, European countries are experimenting with various approaches to the articulation of General Secondary Education (GSE) and Technical and Vocational Education and Training (TVET). The "Leonardo Project" has identified the following four models of upper secondary education systems (UNESCO, 2005) for promoting 'parity of esteem' between GSE and TVET:

- the '*distinctive*' model, found in Germany and Austria, seeks to 'enhance' vocational education by emphasizing the characteristic content of its curriculum and links with employers.
- the '*cooperative*' model, evidenced in Finland and Norway, seeks to facilitate 'mutual enrichment' and cooperation between vocational and general upper secondary schools 'while simultaneously preserving their distinctive character'.
- the '*linked*' model attempts to establish a more formal relationship between vocational and general education through a common qualification structure. This tends to be the route being explored in France and England.

- the '*unified*' model deploys a single post-16 education system 'requiring all students to study certain common general subjects'. Examples may be found in Sweden and in Scotland.

From situational learning to lifelong learning

Although occupational skills play an important role in VET, it is now increasingly felt that special attention should be given to basic skills such as literacy and numeracy and, more generally, the capacity to learn (learning how to learn and how to translate skills into action). Learning is a continuous process, therefore, part-time on-the-job VET should be made available for those who have entered employment and wish to improve their professional competence through further education and training. Lifelong skills training and re-skilling of the workforce will minimize the displacement of workers from rural areas. One of the recommendations of the Education Commission (1964-66) was that an immediate beginning should be made to develop a wide range of vocational and technical courses through correspondence. Such courses may be of varying duration and may include part-time courses, correspondence courses, sandwich courses, etc. The vocational courses should also have flexibility in the duration of training, appropriate to the expected levels of competencies and skill proficiency, as any rigid pattern of two or three years duration tend towards perpetuation of the existing straight jacket system.

Open and Distance Learning System (ODLS) is increasingly becoming popular because of its capacity to provide education of comparable standards in a flexible and learner friendly manner, particularly to those who could not get access to the formal system of education- the unreached group. A system for life-long learning for acquiring skills through formal and non-formal VET Institutes, Colleges and Universities should be developed. Access through Open and Distance Learning mode to those who live in rural, tribal and remote areas and who could not avail the benefit of VET should be enhanced. Educational Satellite (EDUSAT) need to be utilized for popularization of VET programmes and for providing necessary soft skills to the target groups.

From skilled workforce to capable human resource

Capability is the ability to perform certain basic functions, to cope with stresses and shocks and the ability to find and make use of livelihood opportunities. Employers want graduates with a balanced port folio of skills including 'hard' (i.e., technical or cognitive) skills and 'soft' (i.e. interpersonal and emotional) skills (Burchill *et al.*, 2000; Calway & Murphy, 2000, Coll *et al.*, 2003). The various capabilities that need to be developed through education and training to make a person's livelihood sustainable are:

Human capabilities

It includes health, skills, literacy, and access to food. Developing the ability to help youths to use appropriate resources in learning, skills to solve problems based on scientific principles and procedures and ability to take independent decisions.

Economic capabilities

It is an ability to earn an income to allow for consumption and for development of assets.

Political capabilities

In this people having rights, a voice and some influence over public policies and priorities.

Social-cultural capabilities

It is an ability of people to participate as a valued member of society, their social status, and dignity.

Employability skills are the generic skills, attitudes and behaviours that employers look for in new recruits and that they develop through training programmes for current employees. Employability skills refer to those skills needed by individuals to effectively respond to the literacy demands of the workplace and to successfully perform job duties, learn, and apply learning on the job (Gowen, 1992). According to Fugate *et al.* (2004) employability is a psycho-social construct that embodies individual characteristics that foster adaptive cognition, behaviour and affect and enhance the individual-work interface. It is conceptualized as a form of work specific active adaptability that enables workers to identify and realize career opportunities. It facilitates the movement between jobs, both within and between organizations. It also enhances an individual's likelihood of gaining employment. The employability or 'soft skills', which the employer expects from the employee include the following:

- *Oral communication skills:* listening skills, presentation skills, participation in groups, voice, tone, gesture, styles, telephonic conversation, etc.
- *Written communication skills:* clear and short messages, correct use of grammar, framing sentences, etc.
- *Honesty and integrity:* loyal to the organization, honest, etc.
- *Team work/ working in groups:* working with others to accomplish tasks.
- *Self-motivation skills:* self-activator.
- *Work ethics:* respect for others, values, punctual, etc.
- *Critical thinking:* systematically use information, share experiences, observing and reasoning, skills to guide own decisions, actions and beliefs.
- *Multi-tasking skills:* adaptability to new tasks, perform a variety of tasks, etc.
- *Leadership skills:* guiding and supporting others in order to accomplish something.
- *Interpersonal skills:* relating with other people and communicating with them in everyday interactions.
- *Working under pressure:* handling stress that accompanies deadlines and other limitations or constraints.
- *Creativity and innovativeness:* creative and innovative thinking to improve the performance and quality.
- *Negotiation and influencing skills:* persuading others to think about or adopt a different point of view.
- *Organization skills:* organized and methodical.
- *Problem-solving skills:* analyzing the potential causes of a problem and coming up with a solution.
- *Information and communication technology skills:* performing tasks efficiently with less time and energy using computers, etc.

- *“Learning how to learn” skills:* learning new things quickly and thoroughly and willing to learn continuously.
- *Time management skills:* using time wisely and consistently, staying on schedule and meeting deadlines. It includes personal goal setting, effective scheduling, maintaining activity logs, etc.

Skills training should also involve personal and social competencies (e.g. self-esteem, networking, negotiating, etc). In addition to generating broad benefits to society, personal and social skills directly increases productivity and flexibility of the work force and the access of the poor and socially disadvantaged groups to training and wage employment. VET system in Germany, France and the Netherland is placing greater emphasis on employability skills, with occupations becoming less specialized in line with the requirements of the knowledge economy and to promote occupational mobility of individual through lifelong education.

With technology replacing labour, more individuals will shift to self-employment and entrepreneurial activities. These challenges would require them to be flexible in their ability to acquire new knowledge and skills, adapt constantly to changing production processes and function in new environments. Entrepreneurship, which refers to an individual’s ability to turn ideas into action has to be developed through ‘Enterprise Education’ programme from primary stage onwards and ‘Entrepreneurship Competence Development’ programme from the secondary level onwards to prepare individual for self-employment. Encouragement of partnerships between VET Institutions and enterprises for delivering entrepreneurship programmes, financing pilot projects, disseminating best practices, etc. is essentially needed in setting up good examples of entrepreneurship education.

From ineffective to effective public training system

Governments have built public training systems for providing VET before employment. However, public training system is not very efficient, effective. It is rigid and slow to change to meet the ever changing employment scenarios. According to the World Bank (1991), there are six key elements in strategies to improve public training: (i) choosing appropriate objectives, (ii) improving market orientation in planning, (iii) improving institutional responsiveness to market forces, (iv) using training resources efficiently, (v) building capacity for policy implementation, and (vi) diversifying sources of finance. As mentioned in the World Bank policy paper, these four elements have been described below.

Choosing appropriate objectives

A first step towards more effective and efficient training is to focus publicly provided or subsidized training more dearly on areas in which the presence of significant external social benefits, market imperfections, or weak employer and private training capacity reduce the role of private sector training. For example, higher technical skills can be important to growth in economically strategic sectors or industries in which technological change is rapid. The long duration of such courses and the risk of losing workers with transferable skills make employers reluctant to provide this kind of training. The costs can also make it difficult for individuals to finance their own training, especially where they are unable to borrow for their education. The risk to individuals of a substantial investment in training for newly emerging or rapidly changing occupations is also high, further reducing incentives to invest. Government support for private technical education, for example in the form of scholarships, may thus be needed. Public provision is a reasonable transitional alternative where private training is not available.

Public pre-employment training of skilled workers in secondary vocational schools and labour training centers may also be justified when employer and private training capacity is weak. But such programmes must be both effective and efficient, and in many cases this will require significant changes in institutional practices to improve responsiveness to market forces.

Training for workers displaced by economic restructuring is another case in which external social benefits justify public intervention. Experience in industrial countries shows that training can help dislocated workers find new employment if other complementary elements are in place, including job creation programs, support for self-employment and small business development, effective labor market information systems and labor placement institutions, subsidization of the costs of worker relocation, and income support programs during retraining and job search. Effectiveness requires that training be linked to demonstrated job availability or be integrated with efforts to expand self-employment or to establish small businesses. Experience in developing countries, including Chile and Mexico, suggests that effectiveness is improved by decentralizing publicly subsidized training to local labour markets through competitive contracting for services from employers, private training providers, and public training institutions. Accountability can be improved by linking funding to placement outcomes. The high cost of these programmes calls for special attention to the need for highly flexible arrangements in order to minimize the length of training.

Improving market orientation in planning

Much public pre-employment training is isolated from market forces and is rigidly administered. These factors contribute to low levels of job placement for graduates. Improving responsiveness requires action at both the national and institutional levels. At the national level (or state level in larger countries) the isolation of public training from the economy can be reduced through planning approaches that rely on labour market analysis, on monitoring of training costs and outcomes, and on information from employers in determining training supply.

Improving institutional responsiveness to market forces

Encouraging institutions to specialize in the needs of different skill markets and to develop strong information links with employers by increasing the authority and accountability at the institutional level. Effective response to training needs depends on good training outcomes, which in turn require adequate financing for salaries, materials and maintenance. Institutions should be given freedom to enhance their income by undertaking projects related to their field of work. The funds generated should be used for development and maintenance work.

Using training resources efficiently

Good training costs more than general education, and it is thus important to manage costs efficiently. The curriculum transactional process should be made effective and efficient. Networking with other resource institutions & industries need to be made.

Building capacity for policy implementation

Implementing responsive, market-oriented public training policy requires strong and sustainable institutional capacity. Training authorities governed by a board with representatives of employers, worker organizations, and government have been effective in this task. Given a degree of autonomy and adequate resources, training authorities can help create a favorable policy environment for effective training, in market-oriented planning, testing, monitoring, and research and development services.

Diversifying sources of finance

Finance policy for training should ensure both the stability of funding needed to develop sustainable institutional capacity for policy implementation and the level of financing needed to improve training results. The claim on public resources for vocational education and training is much less strong in most countries. A first objective, therefore, is to increase the contributions of employers and trainees. Direct cost recovery from employers is the most efficient source of financing, either through employer sponsorship of trainees or through contracts for training services. Cost recovery from trainees is an option if fees are also charged for academic secondary or postsecondary education; otherwise, cost recovery for vocational programs raises significant questions of parity. Income from the sale of products and training services has provided an important source of revenue in several countries. Levies on employer payrolls have been a stable and effective way to finance training, especially for national training authorities, and to support technical assistance and financing programs to develop employer training. In general, payroll levies should be seen as another transitional mechanism, to be dismantled as training institutions get stronger and as direct finance by trainees and employers is expanded.

ACTIVITY 9



Describe the characteristics of an effective training system in about 100 words.

From rigid to flexible VET model

Flexibility refers to access, meeting the requirements of both small and large enterprises, and with negotiation, input and decision-making occurring at the local, rather than at the national level. Flexibility at the local level, should, however, remain managed through the use of external auditing to assist with adherence to national standards and certification (Billett, 2000). Greater autonomy should be given to VET Institutions to design their own programmes and use flexible delivery models, with the involvement of business and industry.

Raffe (1994) distinguishes four dimensions of flexibility: (i) individual and curricular flexibility, (ii) flexibility of delivery and of pathways related to the competence to cope with labour-market uncertainty, (iii) flexibility to work in a range of different occupations and contexts, and (iv) to learn new skills rapidly. The flexibility model from a system perspective proposed by Nijhof and

Streumer (1994) is given in Fig. 1. They define transferability as ‘the potential to perform in new and different situations’. Transferability enables people to achieve mobility on the labour market.

A ‘Cafeteria’ approach of offering vocational courses of varying durations should be adopted in VET institutions. It will enable students to exercise their choice and take their own decision in opting for a programme, which would lead to the career of their choice (Mehrotra, 2005).

Context	Input	Process	Output
Megatrends New technologies	Responsiveness Platforms	System’s flexibility Time (pacing)	Transferability Higher (order) skills
Global economy	Interfaces between tripartite actors	Different pathways (individualisation and/or differentiation)	Learning to learn
Demography and cultural changes	Institutionalisation		
↓ Labour market changes	Qualification structure	New content and skills (standards)	Transition skills Employability
↓ Changes in skill structure and skill formation	Accreditation of prior learning	Powerful Learning Environments (on-the-job/off-the-job, cognitive apprenticeship, Virtual learning)	
	Certification	Flexible entrance and leaving conditions	Qualification
		Modular structures	

Figure 2.1: Flexibility from a system’s perspective

Source: Nijhof and Streumer (1998)

From instructional objectives to learning outcomes

Competency-based education and training is structured around competent performance by learners where competence is defined in terms of achievement to the level of industry standards. Industry set standards for each occupation which need to be adopted for competency based education and training. Occupational skill standards (detailed listing of all major activities/tasks that a worker must perform in the occupation) need to be defined based on international and local practices, as agreed with stakeholders.

The VET curriculum should be designed to develop skills of the levels and quality acceptable to the ‘industry’. Competency based Curriculum (CBC) indicating the framework of objectives of the course, the syllabus, performance criteria, instructional methods to be followed in the classroom, training procedures in laboratory or workshop, teaching materials and competency based evaluation should be adopted for vocational courses. VET curricula should be reviewed and updated from time to time so that the courses do not become moribund and irrelevant to the vocations and livelihoods in a given area or region. Professional training of all teachers and trainers, focused on implementation of flexible teaching-learning practices in VET should be organized.



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The new developmental paradigm of vocational education and training, will have to be made learner-centered (empowerment, participatory), holistic (infrastructure, investment climate, multiple skill development strategies), dynamic (innovations), flexible (training for employability and change), and economically (competitiveness, enhanced productivity and performance) and environmentally (conservation of resources and biodiversity) viable. A high degree of ownership, commitment and involvement should be attached to the VET programme by the stakeholders - learners, trainers, training specialists, teachers, key functionaries, trade associations, industries and parents.

Quality research and dissemination to increase understanding of pedagogical, technical and managerial aspects of flexible learning is needed. A wide range of pedagogical innovation and

development projects should be carried out to emphasize the importance of finding new ways of organising students' learning possibilities. Training teachers in conducting 'action researches in VET' prove to be useful in bringing about necessary changes in teaching-learning approaches and in bridging the gap between theory and practice.

Accreditation of public and private VET providers for quality assurance and uniformity in skills development should be taken up.

Delivery of VET through a new partnership between the Government, Employers, Professional Associations, Industry, Employee's Trade Unions, Local Community and NGOs should be designed to meet the contemporary needs of the knowledge economy.

National Curriculum Framework (2005), approved by Central Advisory Board of Education (CABE) has proposed a comprehensive system of VET for India. This has taken into consideration the various issues and suggestions mentioned above. This needs to be critically studied (Ref. 5.4.1 Vocational Education and Training, Page 116, NCF-2005).

Summary

In this unit we have discussed the role and consequence of vocational education and training in the changing society, which is tremendously influenced by the liberalization, privatization and globalization. VET refers to an organized education and training programme that leads to the development of knowledge, skills, and abilities of an individual that are important for economic and social activities. It is now universally accepted that people with adequate education and skill training are more capable to adopt new technology and become more productive than people with just basic knowledge. VET should address the issues of equity and efficiency in education and training system and therefore, provide access to a large number of people who want initial training, and some others who want continuous or further training for a decent earning and sustainable living. Pathways from school into the labour force or tertiary education are changing. In the past, people tended to move from school into full-time work or tertiary education and training. From tertiary education and training they moved into full-time work. Economic growth now depends heavily on the ability of the workforce to constantly improve its skills and retrain in new skills. As a consequence, people now increasingly move backward and forward between different forms of education and training and different forms of work (part-time or full-time work). It is now more common for people to undertake education and work simultaneously. It may increase self-employment and the need for appropriate training in this field. The paradigm shifts that are needed to bring about necessary reforms in VET for achieving the strategic objectives of (i) making VET demand driven, (ii) promotion of experiential and work-based learning, (iii) making VET flexible, etc., necessary for providing quality VET for meeting the skills demand of the changing society and industries in the era of knowledge economy have been discussed in detail.

The following works have been cited in the text of this unit. You may like to get hold of some of these books for further reading.

Suggested readings



You may like to refer to the following literature if you have access to them.

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Questions for critical reflection

1. Do the current secondary and post-secondary students in India receive an education enabling them to benefit from the continuous learning required in the workplace? Give two reasons to support your views.
 2. Study the national vocational qualification system of different countries available on their websites. Do you suggest that we should also adopt a national vocational qualification system in our country? Give four reasons to support your answer.
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Vocational Education and Training: Partnership Model

▪ V.S. Mehrotra

UNIT

3

Introduction

As discussed in the preceding unit of this block, a majority of VET programmes could not adequately address the issues of access, equity, relevance and quality especially in relation to the needs of the emerging job opportunities for skilled human resources in industries and business. This was due to lack of involvement of industry in VET, lack of industry based skill standards, deployment of untrained and inexperienced vocational teachers. The term 'industry' in the context of VET includes all such organizations, and enterprises which have potential to employ graduates from VET system. Despite significant progress in gross enrolments for primary education through *Sarva Shiksha Abhiyan*, large inefficiencies remain in the education system, resulting in high numbers of dropouts from basic and secondary education. Access to vocational education & training is limited, because institutional facilities do not exist in most of the towns and rural areas. Students from lower socio-economic backgrounds are over-represented in vocational education streams, thus raising equity concerns. Greater involvement of Industry and enterprises for shouldering responsibilities of financing and training is lacking in VET. Significant differences between public and private provision of VET in terms of enrolment rate, student-teacher ratio, duration of courses, standard of training, training fee, qualification and salary of teachers/trainers, etc. is a major concern for the Government. The employment scenario is changing due to increasingly knowledge based and technologically driven job opportunities. With technology replacing labour, more individuals will have to shift to self-employment, thus requiring entrepreneurial abilities and skills. In addition, the present vocational education and training system in India is not geared to meet the challenges posed by liberalisation, privatisation and globalisation (LPG) and the technological advancements taking place as a result of information and communication technology. There are some good practices and models of public-private partnerships (PPP) in VET but their outreach is small. Large-scale replication of successful pilot programmes of VET in PPP mode is needed for addressing the issue of providing quality VET on a larger scale.

This unit provides a broad overview of the importance and role of partnership in vocational education and training for making it more relevant and effective in meeting the need of skilled manpower for the society, the industry, the small and medium enterprises and the business. The unit will also discuss the barriers to the social partnership model in VET and how the interpersonal and organizational challenges have to be faced for establishing and sustaining successful partnerships in VET.



Learning outcomes

At the end of the unit, you should be able to:

- explain the various existing models for delivery of VET;
- analyse the issues and challenges facing VET in India, with specific reference to the lack of quality training;

- explain how social partnership with industry and community would be useful in providing relevant and quality VET;
- explain the importance and role of Public-Private Partnership in VET ;
- identify useful perspectives from successful models of Public-Private Partnerships from abroad and relate the important implications for the improvement of Vocational Schools/ VET Institutions in India;
- examine the initiatives being taken by the Government and Industry Associations in implementing VET through Public-Private Partnership mode in India; and
- explain the barriers and factors affecting the utilization of the potential of public-private partnership and how they can be overcome to establish successful and sustainable relationship among the various partners in VET.

Existing models of delivery of VET

There are four different models adopted for delivery of VET viz., (i) Institution-based model, (ii) industry-based model, (iii) collaborative model and (iii) multi-channel model (Mehrotra, 2005).

Institution based model

In the institution based model, both theoretical and practical instructions, including on-the-job training are imparted in the institution. Laboratories and workshops are fully equipped with necessary tools, equipment, and machines. Production-cum-Training Centres (PTC) are established wherever possible for providing practical experience and developing entrepreneurial skills.

The industrial training institutes and polytechnics in India are examples of institution-based models. Besides India, this model is quite popular in many other countries in Asia and Pacific region. It has been adopted in Belgium, Denmark, France, Greece, Netherland, Poland, Republic of Korea, Spain, and Sweden for delivery of technical and vocational education and training (TVET).

Industry based model

In the industry based model, theoretical and practical instructions are imparted in the actual work place or 'industry'. Industry here is taken as organizations or employers within a particular industry grouping. The model is adopted in the cases where the cost of development of infrastructure is high or the trainers could not be arranged in the institution due to some reason(s). This model is also adopted in the cases where enterprises establish their own institution for providing training.

Collaborative model

In collaborative model, theoretical instruction along with practical training in basic skills is imparted in VET institution, whereas specialized skill training is imparted in industry. The degree of collaboration between educational institutions and industries may vary from course to course, mainly depending on the extent of cooperation extended by the industry. The duration of specialized training in industry may also vary.

The collaborative model has the characteristics of the 'Dual System' of delivery of TVET in Germany, where the course is divided into blocks, and comprises of alternate institutional instruction

The Multi-channel model is based on the delivery of basic and advanced skills training through classroom instruction in educational Institutions, complemented and/or supplemented with open learning opportunities through programmes offered by open and distance learning system (e.g., courses offered by open schools and universities, Internet, Computer-Assisted Instructional Materials, etc.). The model is a hybrid of formal and non-formal system of learning and provides for a multi-channel approach to VET. This model offers new alternatives for offering VET on demand and to a variety of target groups, thus ensuring greater equality of educational opportunity and economical use of educational resources.



Visit a school offering VET at 10+2 level or a VET institution (like Industrial Training Institute, institutions run by NGOs, etc.) and examine the delivery model adopted by it for various vocational courses. Based on that, reflect upon the the visible and invisible pitfalls in their delivery model. Write in about 150 words.

THE PEOPLE'S UNIVERSITY

Need for paradigm shift in delivery of VET

In the previous units, it has been discussed that the VET in its present form and model is unable to play instrumental role for developing human resource for the knowledge economy. Transforming VET from low quality second-choice learning, into high quality preferred learning opportunity requires sustaining a comprehensive strategy for a series of reforms in different areas. The United Nations World Summit on Sustainable Development (2002) has called for the development of workplace partnerships and programmes, including training and education programmes on the concept of sustainable development. There is a need to streamline the various activities involved in VET for reducing the cost and increasing effectiveness. This can be done by identifying the “key issues” involved in the implementation of the programme and then strengthening the efforts and support in the areas that require greater attention and restructuring to suit the needs of the programme. The first step, however, is to develop a comprehensive system of VET, parallel to the existing academic system, as suggested in NCF (2005).

In modern manufacturing and services sector in which the conceptual content of jobs is increasingly high and corresponding manual skills are less important, the broad competencies gained through good quality academic secondary education are significant, not only to immediate productivity, but also to the ability of workers to learn new skills throughout the career. The most important of these are the abilities to communicate clearly in writing and to use mathematics and science skills to diagnose and solve problems. Higher order thinking skills like ability to think creatively, make decisions, solve problems, reason, analyze, interpret, and know how to learn, etc. are also essential. These skills are not only critical to work, but they are also needed to deal effectively with the increasingly complex spheres of family, community, and society.

In order to strengthen VET, it is necessary that VET institutions should offer vocational courses in varying combinations with emphasis on problem solving activity. The shift from highly specialised and repetitive jobs at lower skill levels towards teams expected to handle a broader range of activities, including problem solving and supervisory responsibilities, makes a broader range of workers who can exercise mental activities enhanced by access to knowledge and skills acquired in other situations (Berryman and Bailey, 1992). Bynner (1997), demonstrates in his study that *basic skills* rather than the more *directly work-related skills* are key factors in employability. Work related skills seem to be important for successful functioning within employment, and progress via promotion to higher levels of work.

There is a need to develop a flexible VET system that can rapidly respond to the changing labour market needs and provide nationally accredited vocational qualifications, based on industry set skill standards. Provision should be made for further education or life long education for students taking up vocational courses at the secondary and tertiary stage.

ACTIVITY 12



In order to address the issues of quality assurance in VET, outline briefly, in 100 words, how flexible VET would be useful in addressing the issue.

Partnership in VET

Let us now try to understand what we mean by partnership in VET. Partnership in VET means that in order to operate the VET system at least two partners are required that will generate finance, manage resources and implement VET programme(s) to achieve the shared goals and objectives.

Partnerships are based on relationships between government, industries, agencies and communities or any combination of these. A wide range of partnerships are available in health, community, regional and rural development, welfare support, as well as education and training. In an educational context, they can provide learning opportunities to the students in the existing institutions such as schools, university and vocational colleges, and can also target 'at-risk' individuals who may not have access to formal learning. Linkages between VET Institutions and industries for providing technical support relevant to vocational courses have been recognized as an important feature of VET. In order to improve upon the quality of VET programmes, suitable interventions have to be provided with the involvement of the industry to control the various factors that affect the quality of teaching and learning and ultimately the outcomes of VET programme. Paris (1994) describes local partnership as the local entity responsible for the VET programme, which consists of employers, representatives of local educational agencies and local post-secondary educational institutions (including representatives of area vocational education schools, where applicable), local educators (such as teachers, school counsellors, or administrators), representatives of labour organizations or non-managerial employee representatives and students.

The partnership in VET, as it is being developed in some countries, includes private sector participation in (i) decisions regarding the feasibility of public investment in VET, (ii) identification of skill needs and the development of skill standards and competency based curricula, (iii) management of public training institutions, (iv) provision of enterprise-based training in coordination with public training institutions, and (v) monitoring and evaluation activities. These partnerships are at an initial stage of development in India, although they are more advanced in other countries.

Need for partnership in VET

You may now be thinking how partnership mode could be adopted in VET. Let us first address the question "Why do we need to adopt a partnership model in VET?" There is a school of thought that the government programmes delivered through private and community organizations have well-documented advantages—better targeting, greater sense of ownership among the beneficiaries, and the cost of delivery being internalized by the beneficiaries. Such delivery mechanism can enable government programmes to be more demand-driven, where beneficiaries share the costs, thus making programmes more sustainable. The arrangement between VET institution and industry for delivery of VET substantially reduces the cost and time spent in the learning process. Partnerships provide an enhanced local capacity for addressing some of the difficult problems

and generating solutions in line with local needs and more acceptable to local interests. There are also specific benefits for business (Figgis, 2000), including (i) an increase in productivity of existing staff and through student contributions, (ii) an enhancement of the company's skills base through the training that staff gain or the rethinking of their role and existing work practices, (iii) more efficient and effective recruitment, (iv) community recognition for their contributions, (v) improved public image, (vi) employer and staff personal satisfaction that has positive effects on attitude and motivation, and (vii) the positive impact of all of these things on their 'bottom line'. You may like to think of some more reasons, which support that partnerships between VET Institution and Industry would be beneficial to the Industry too.

Partnership principles

There are certain basic partnership principles, which also apply to the PPP model in VET and there has to be a general agreement that all participating organizations must agree explicitly on partnership principles before forming the partnership and the commitment to obey these principles must be binding. Some of the principles that should be explicitly agreed upon by all the partners of VET have been discussed here.

Openness and commitment

Openness applies to the disclosure of benefits, profits and risks arising from the partnership, resources put into the partnership, the shared goals, and the division of tasks, responsibilities and functions. Disclosure of all relevant information and faithfulness to commitments made is an important principle of cooperation. The process of decision-making by negotiation is done together with the general aims. Mutual trust between partners contributes a lot to the successful achievement of the objectives of partnership. Every participant fulfils the role that is assigned to him or her within the partnership. The equality of the roles is not essential, as long as the partners in their assigned roles have equal rights. The focus is on achieving goals negotiated together with which partners can identify themselves.

Clear shared goals

The partners in VET should set on their own a shared clearly defined goal for the partnership. Each partner must have a specific reason for joining a partnership, i.e., a specific need that they can fulfill by participating. Schools or VET institutions should provide better career paths and positive learning experiences to the students, and change employer attitudes about the employability of marginalised young people. Industry should address the skills shortage, build the workforce through a larger pool of apprentices, get young people who had the 'right attitude' to work, and maintain a more stable workforce by hiring local people. Government can provide clear goals and objectives to achieve them by developing national policies, national skill standards, incentives to encourage private participation in VET and reduce the regulation of private training institutions. Government may decide on certain widely accepted training goals, based on the district surveys. Once these goals have been set out, private institutions can be monitored to perform effectively.

Clear division of tasks, roles and functions

The scope of partnership work is linked to other factors, such as the number of partners involved, their geographic spread, their diversity of interests and their knowledge and skills, especially in relation to governance. Each of these factors affects the character of relationship building and the level of support, encouragement and capacity-building which had to be undertaken (Seddon and Billet, 2004). The assignment of tasks and responsibilities is done according to the actual capabilities and expertise of the partners. In the longer term, the functionality of partnership depend upon the

development of capacity and reciprocity, both of which sustain productive relationships between the various stakeholders.

Supervision

The Head of the institution or principal is critical to the process of partnership for s/he has to play a different form of leadership, which is referred to as *enabling leadership*. Enabling leadership is defined as 'leadership which facilitates others to come together to create visions and plan futures, inspires commitment and action by enabling people to solve problems, and build broad-based leadership involvement' (Johns *et al.*, 2001). Continuous supervision and monitoring allows improvement in the delivery of VET, optimisation of performance and sustained involvement of all the partners in VET.

Inclusivity

Seddon and Billet (2004) have pointed out that the degree to which social partnerships are able to achieve their goals is shaped, in part, by their capacity to be inclusive of the range of interests within the community. They are of the opinion that in focused social partnerships, such as those associated with VET, identifying those who can contribute (for example, employers, educational institutions) and those who need to be understood (for example, young people, different communities, cohorts most in need) should be a key goal. It is not always possible to secure an adequate representation of particular interests and the larger and more diverse the community being represented by the social partnership, the greater is the potential problems of achieving inclusivity.

Viability of partnership

The partnership in VET includes parents, students, teachers, trainers, principal, administrators, industry representatives, representatives of community/civil society organizations/NGOs and educators who demonstrate shared values and beliefs in the objectives of VET. The long-term viability of partnership depends upon the relationships between the groups (government, industry, employers, professional associations, VET institutions, civil society organisations, etc.) constituting the partnership. With a level of trust between those involved, partnership should 'meet the needs' of those involved in the programme and reaffirm the partnership's values and commitments.

The quality of the private sector participation in the steering committees for each pilot VET center is uneven, with some representatives from the professional organizations unprepared, technically and operationally, to assume their responsibilities in the steering committees (World Bank, 2005). The experiences in VET implemented through PPP model have shown that private sector participation in institutional management committees tends to be nominal. In some cases, private sector representatives have not shown a strong commitment to participate in these types of committees. In most countries there is a traditional mistrust between the private sector and the VET authorities, which is expressed in a lack of dialogue and cooperation. Sustaining the partnership and keeping it viable throughout the project requires regular participation of the representatives of industry in various aspects of implementation of VET project, feedback to participants, upgradation of competencies of personnel involved, due acknowledgement of contributions of partners from time to time, incentives for efforts and periodical monitoring and evaluation.

Role of key players in partnerships for VET provisions

Quality improvements in VET cover a wide range of issues such as setting standards for skills and qualifications, curricula development, teachers and trainers' development, better testing and outcomes measurement, monitoring and evaluation, and accreditation. Clear division of role and functions in achieving the objectives in these areas require a strong commitment and clarity in tasks to be performed by the key players in partnership. Let us now discuss the role that the government, the private sector, the local community/civil society organisation/NGOs will have to perform to create a coherent and enabling environment as partners in implementing the VET.

The approach paper for the XI Five Year Plan promulgates that public-private partnership models, which involve industry representatives in management of industrial training institutes and in design of courses, being tried in some States/UTs need to be encouraged further. Both public and private institutions should be encouraged to provide training and freedom to train those seeking certification. The key to making PPPs acceptable is to create an environment where PPPs are seen to be a way to attracting private money into public projects, not putting public resources into private projects (GOI, 2006).

The government

The government should be responsible for policy design and delivery, formulating a coherent legislative framework, and developing a national strategy for ensuring quality VET programmes by choosing partners on competitive basis and implementing government guidelines and norms as laid down in the national scheme for implementation of PPP model in VET. It should function less as a centralised decision-making agency and more as a coordinating and facilitating agency which steers policy by creating contexts for, and helps to build individual and organisational capacities which sustain localized decision-making within networks (Kickert, Klijn and Koppenjan 1997).

Reforms in the area of governance in VET seek to include key stakeholders in the strategic decisions and in the management of VET policies and services. It also requires the development of accountability mechanisms and decentralisation to ensure efficiency, relevance and quality in the delivery of VET services.

Overall management and functioning of a particular VET institution could be handed over after arriving at a written memorandum of understanding (MOU) with the industry/industry association. Government should provide funds for bearing operational costs towards meeting the basic needs of beneficiaries. A diversification of funding sources is required to meet the challenges of better quality VET. But at the same time, new funding allocation mechanisms are needed for TVET institutions to create the incentives for improved relevance and the delivery of quality TVET (World Bank, 2005).

The private sector

The private sector is increasingly called upon to play an important "interface" facilitating role for translating the constant changes in the world of work into adequate training content and methods. They are considered as important agents, which can contribute to the responsiveness of the training system to the demands for training and qualifications from both the enterprises and individuals. Participation of the private sector in VET systems ranges from governance arrangements to the development of public-private partnerships for the delivery of VET services, and the development of in-service training and lifelong learning opportunities.

Participation of the private sector in the governance of VET systems through national committees or other institutional arrangements is only one dimension of a broad partnership that is beginning to emerge between the public and private sectors. The industry/organization as a partner or key player should provide specific services to the government run VET Institution according to the terms of the agreement or MOU. Government should provide funds on a competitive basis to the industry for undertaking specific services. The overall management of institutions, however, should remain with the government.

Active participation of the private sector is constrained by weak private sector organizations, which lack a vision for human resources development in their strategic objectives. They also lack a sufficient number of skilled staff and have limited resources. In fact, skill development is not yet a priority for a large number of enterprises, particularly among small and medium-sized enterprises (SMEs).

Improving the capacity of the private sector to actively participate in the implementation of an overall VET strategy for human resource development is one of the key areas to be developed. Direct provision of VET by private proprietary institutions is concentrated in a few trades, which generally do not require large capital investment. Private provision is concentrated in a few sectors, particularly in Information technology, languages and services, and generally offers short-term courses. It is a condition in most countries to register with the government in order to operate, and the government provides accreditation to the training provider on the basis of equipment, furnishing and staffing. There is a need for encouraging private sector participation in running courses in new and emerging trades, with stronger accreditation mechanisms for quality assurance.

The civil society organizations/NGOs

Community partnerships constitute localised networks, which bring together some combination of local community groups, education and training providers, industry and local government to work on various local community and community-building activities. These community partnerships are often focused on a specific region or particular issues (for example, women's small business networks).

The rapid expansion of civil society organization or non-government organizations (NGOs) and bilateral and multi-lateral agencies working in community development programmes has been due to the fact that they act as a catalyst for communication between government and communities. Civil society organizations can create opportunities for interfacing VET with economic opportunities. A large number of NGOs have taken up the work of training rural youths, school leavers, special groups, and women in local specific and need-based areas. However, these NGO programmes remain limited in scope and vulnerable to financial instability. Lack of coordination with government initiatives limits the potential leverage of these initiatives.

There are many NGOs providing skills training to the youth and adults, especially to the economically and socially deprived people. Some of these are Skills for Progress (SKIP), Bangalore Goodwill International Association, Bangalore, Management of Enterprises and Development of Women (MEADOW), Hosur (it is a collaboration between the watchmakers TITAN and MYRADA), Movement for Alternatives and Youth Awareness (MAYA), Bangalore Development of Human Action (DHAN), Madurai, Best Practices Foundation, Bangalore, Dr. Reddy's Foundation, Bangalore and DON BOSCO-India, New Delhi. If you intend to read more about the interventions and skill development programmes run by these NGOs, you may refer to the paper of Amit Mitra (2002) or visit the website of the NGO. Innovative or good practices established by NGOs could not be adopted by the education system of the countries as they are mostly contextual and individual driven.

ACTIVITY 13



Collate your views on the role of the head of a VET institution in establishing and sustaining the partnership with the private sector and local community for imparting quality VET. Write in about 100 words.

[illegible]

Models of school-industry partnerships

Although different models have taken shape in the development of school-industry partnerships, Stokes *et al.* (2006) have suggested three models through their study viz., (i) Regional cluster model, (ii) Specialised programme model, and (iii) Whole-of-community model.

Regional cluster model

In a regional cluster model, schools within the region establish a formal agreement and are serviced by a central VET coordinating body. That body, through the diversity of its industry and school representation and the comprehensiveness of its networks, is well placed to identify and coordinate the needs of local industry and student interest and capabilities. It is able to draw on and strengthen the social capital residing within the various local communities and across the wider region to make a variety of VET options available to all participating students. The regional cluster model is dependent on a shared valuing of and commitment to VET and, as a result, a willingness to pool resources to achieve mutual goals. Creating a solid structure, engaging business and industry across the region, and embedding VET within a system of interrelationships helps to sustain the partnership through transition periods when people may leave or do not perform according to expectations. The pooling of resources and student numbers through a central organisational base helps to maintain a wide variety of VET programmes for students across the region.

Specialised programme model

A specialised program model has a targeted population and/or industry focus within a local area. The specific focus may, however, vary from region to region. It makes a dedicated effort to address the needs of young people for whom existing educational options do not work —whether they are regular schooling or VET options —and who are excluded from a community’s existing social systems (and, therefore, capital). The initiative may be led by a school or another community’s

entity, with the school as an active and main partner, but usually involves a core group of community, VET and industry personnel who meet regularly to guide and monitor the programme.

Whole-of-community model

In a whole-of-community model there is an active and persistent effort to engage, as far as possible, a broad spectrum of community members in a joint approach to respond to the broad range of young people's needs. The model seeks to include everyone by considering options for young people who are alienated from or have left from school, those who might leave, and those who will remain at school but for whom access to alternative experiences will be beneficial for their future education and/or employment. This model is usually driven from a school base, with active community engagement and support. It needs to draw on both internal and external resources to create programme options for young people, and to embrace flexible delivery of training, with strong business support for individuals or small groups of young people.

ACTIVITY 14



Collate your views on the school-industry model that you would suggest for adoption in schools offering VET in India. Give two reasons to support your views. Write in about 100 words.

Recommendations of UNESCO-ILO on public-private

Partnership in TVET

The United Nations Educational, Scientific and Cultural Organisation (UNESCO) and International Labour Organisation (ILO) recommendations concerning public-private partnership in TVET for the Twenty-first Century (UNESCO, 2002) are as follows:

- Although Governments carry the primary responsibility for technical and vocational education, in a modern market economy, technical and vocational education policy design and delivery should be achieved through a new partnership between government, employers, professional associations, industry, employees and their representatives, the local community and non-governmental organizations (NGOs). This partnership must create a coherent legislative framework to enable the launching of a national strategy for change. Within this strategy the

government, apart from actually providing technical and vocational education, can also provide leadership and vision, facilitate, coordinate, establish quality assurance and ensure that technical and vocational education for all by identifying and addressing community service obligations.

- Technical and vocational education is best served by a diversity of public and private providers. The appropriate mix can be found in many ways, with the responsibility of governments being to facilitate choice while ensuring quality.
- Government and the private sector should recognize that technical and vocational education is an investment, not a cost, with significant returns, including the well being of workers, enhanced productivity and inter-national competitiveness. Therefore funding for technical and vocational education should be shared to the maximum extent possible between government, industry, the community and the learner, with government providing appropriate financial incentives. Furthermore, the governments of least developed countries in particular should seek bilateral and multilateral capacity-building cooperation in technical and vocational education.
- Within governments, there are often shared and overlapping responsibilities for various elements of technical and vocational education among departments and agencies. It is desirable that governments streamline their own public institutional framework to the maximum extent possible to coordinate the national technical and vocational education effort, create an effective partnership with the private sector, and promote technical and vocational education for the benefit of all stakeholders.

International experiences

One of the strategies being adopted by most countries for bringing about necessary reforms in VET is the involvement of social partners to support the improvement of training quality or to enhance responsiveness to labour market needs. The model of social partnership is central to the European Commission (EC) approach to VET, as expressed in the Cresson White Paper, *Teaching and Learning: Towards the Learning Society*, and in the principles of the Leonardo da Vinci programme. The model implies not only equal involvement of the social partners, employers and worker representatives, but also the development of policy through social dialogue, involving collective agreements negotiated between them.

In European countries, the focus in the curriculum for initial training is to prepare students and apprentices to become employees, as the main task is seen as being to train people to be skilled for performing tasks in an occupation. VET Institutions are closely linked to Industries for realization of effective VET teaching and learning through partnerships. Workplace partnerships give apprentices the range of practical experience to develop competencies for an occupational profile. VET is mostly industry-led and centred on the workplace in the UK and Germany, whereas it is education-led and centred on school in Italy and France.

Measures have been undertaken in nearly all the countries to strengthen the involvement of social partners and sectors/branches of industry in VET. Enterprises are increasingly involved in providing work/training placements for students and teachers/trainers. Cooperation with social partners has been consolidated and systematized to promote a closer match between VET supply and labour market needs. Social partners are involved in the development of policies, programmes, procedures and certification at various levels, including through centralized tripartite councils (e.g., Estonia, Latvia), regional partnerships/networks (e.g., Czech Republic, Denmark, Germany, Estonia, Slovenia, Slovakia) at all levels (e.g., Greece, Spain, Hungary), at local level via school/industry

partnerships (e.g., Austria, Belgium, France, Italy, Malta, the Netherlands, Portugal, Romania, Sweden, Turkey) and through initiatives at sector or branch level (e.g., Bulgaria, Ireland) (CEDEFOP, 2004).

Let us now discuss how social participation of industry and local communities in various countries like Australia, Denmark, France, Germany and United Kingdom is taking place in developing and adopting policies and practices of VET. It will help us to understand the various enabling factors and strategies that have been adopted by other countries for developing and sustaining partnerships in VET.

Australia

A range of partnerships in VET has been implemented across Australia, largely in response to the sector's restructuring and the creation of school-to-work programmes for young people. The Australian Government has expanded and further subsidized VET to assist employers' train in the workplace and alleviate skill shortages, particularly in the information technology and telecommunication industry. Partnerships between industry and registered training providers are encouraged, especially as assessment in the workplace or simulated workplace is required for most training packages. The initiatives were, however, mostly top-down government-funded projects with an emphasis on encouraging the community to play a more significant role in shaping training provision for young people. For example, the federal government policy, which established the agenda for partnership emerged from the Enterprise and Careers Education Foundation (ECEF). A significant focus of the work of the Enterprise and Careers Education Foundation was school-to-work transition, and the organisation was contracted by the Commonwealth to manage support and funding for schools, and subsequently clusters of schools. Clusters of secondary schools providing VET can work together to pool resources and to fund the salaries of a work placement coordinator with responsibility for establishing industry-linkages and locating placements. The ECEF established partnerships with industry to develop programmes such as work placement, work experiences and school-based traineeships and apprenticeships (Enterprise and Careers Education Foundation 2003).

Ford Australia and Youth-at-Risk Inc., for example, are addressing youth training through provision which targets a section of the community not served by institutionalised education and training and which is in danger of being excluded from the community and all that is implied by community membership. This partnership is creating a learning context in which participants gain skills and training based on production line processes and where workplace learning takes place within Ford industries. In another instance small business operators networked informally to share information and to learn how to implement the goods and services tax, creating new learning spaces which included a tennis club, franchisee meetings and school car parks where wives (who often kept the books for the business) talked while picking up children after school (Billett, Ehrich and Hernon-Tinning, 2003).

Denmark

Vocational education in Denmark is administered by the VET Department of the Ministry of Education. There are no other intermediary levels between the Ministry and the training schools. The Ministry's management responsibilities have changed from direct administration of schools to the development of VET policies and targets, promulgation of Education Orders delineating a broad framework for VET courses, and regulation of financing. Vocational schools are now organised as private non-profit and independent institutions. They have considerable freedom in the programming of delivery and enrolments, curricula development and teaching. Individual

schools decide which courses to offer and how to organise the teaching within the national guidelines and financial framework.

All central regulations regarding class size have been abolished, while regulations covering the number of lessons to be taught to students have been modified. Rules on teachers' working hours have been made more flexible. Instructors' wages and employment conditions are regulated through collective agreements, which are negotiated every second year. The independent schools that wish to obtain public funds have to offer programmes, which comply with government regulations. Public grants are not earmarked and schools are free to allocate resources as they see fit. Schools now compete for students and must assess their intake capacity and utilize it effectively in competition with other providers.

In Denmark, the social partners are represented in the Advisory Council of VET (EUR), which advises the Minister of Education on all matters concerning the VET system, monitoring labour market trends and recommending new VET programmes and changes to existing ones. There are also National Trade Committees with equal social partner representation, which define the content of the rules within specific sector VET programmes (Winterton, 2006).

France

In France, an agreement between the social partners requires that each sector should establish 'Prospective Observatories' on professions and qualifications for early identification of skills needs. The involvement of the social partners in VET policy making is defined in various articles of the Labour Code, notably Book IX, Article 910-1: "Vocational training and social advancement form the basis of a concerted policy coordinated chiefly with employers' and employees' organisations." The social partners meet the authorities at national level to discuss VET issues in the National Council for Vocational Training, Social Advancement and Employment (CNFPPSE), which examines government priorities in education and vocational training. Trade unions are not formally consulted before laws are drafted, but virtually all legislation pertaining to initial and continuing vocational training is approved in inter-occupational agreements prior to adoption. The main bodies are the Joint National Committee for Vocational Training (CPNFP), which regulates contractual training stipulations; and the Joint Committee for Individual Training Leave (COPACIF), established in 1992, which coordinates issues related to individual training leave. The Association for the Management of Alternance Training Funds, AGEFAL, founded in 1986, ensures the financial regulation of alternance training funds. At sectoral level, social partners can dictate funding volume and prioritise certain types of training or courses (e.g. favour apprenticeship over alternance, give preference for training to the low-skilled). These agreements apply to enterprises belonging to signatory employers' associations so are not necessarily generalised throughout the sector (Winterton, 2006).

Germany

In Germany, three types of secondary schools exists viz., (i) the *Gymnasium*, offering a rigorous academic programme, (ii) the *Hauptschule*, leading to 'part-time' enrolment in upper secondary vocational schools combined with apprenticeship until the age of '18' and (iii) *Realschule*, leading to higher vocational schools. The Vocational Training Promotion Law (*Berufsbildungsförderungsgesetz* 1981) regulates the responsibilities of the bodies involved in determining VET policy at the national level. The Vocational Training Law (*Berufsbildungsgesetz* BBiG 1969) defines the responsibilities of the 16 regional state committees for VET (*Ländersausschuesse für Berufsbildung*) and the Chambers (*Berufsbildungsausschuesse der zuständigen Stellen*). The Social Law III (*Sozialgesetzbuch III*, 1997) defines shared responsibility

for employment and labour market programmes, including training, continuing training and re-training. The main board of the Federal Institute for Vocational Training (*Bundesinstituts für Berufsbildung*, BIBB), its Standing Committee (*Ständiger Ausschuss*) and the Joint Committee of the Federal States (*Ländersausschuesse*) comprise representatives of central government, employers and trade unions, plus representatives of the Federal States (*Länder*) (Winterton, 2006).

The dual system of TVET is a successful model because every institution has close linkage with the concerned industry under 'a legal framework'. Participation in the 'dual system' of VET is voluntary, even some times firms that are qualified to offer apprenticeships do not do so, and employers are under no obligation to retain trainees upon completion of the dual programme. Social partnership is an explicit part of the system, where sector joint bodies as well as sector agreements are especially important, and at the local level, unions have influence through the Work Councils (Winterton, 1999).

United Kingdom

The United Kingdom has a National and Sector Skills Council to encourage employers to take ownership of skills issues and develop sector strategies to address specific productivity issues and associated skills needs (CEDEFOP, 2004). In the UK, the trade unions are also involved in developing new qualifications. A competence-based approach was adopted in order to establish a national unified system of National Vocational Qualifications (NVQs) in England and Wales (Scottish Vocational Qualifications in Scotland) based on occupational standards. The standards for qualifications were developed through functional analysis organised by employer-led Industry Lead Bodies, a role subsequently taken over by Standards Setting Bodies. Social partner involvement is essential for the establishment of occupational standards, and in addition to the employers, trade unions are involved in those sectors that are unionised, even in construction, which has a very low trade union density.

The Rover Group, Britain's largest motor manufacturer, is pioneering education partnership activity in United Kingdom. The company has introduced a number of distinctive approaches to supporting the work-related curriculum including partnership centres at its major plants and school-based facilities, the so-called "Rover rooms", in the surrounding catchment areas. Quality in work experience has been a major concern for the Rover Group and, in addition to the company's annual award scheme, initiatives such as learning agreements for pupils have been introduced to raise standards and ensure the quality of learning outcomes (Berkeley, 1998).

ACTIVITY 15



You have by now understood the various strategies adopted by different countries for involving social partners in VET, do you suggest that India should formulate a legislation for ensuring participation of the industry in VET? Give two reasons to support your view. Write in about 150 words.

In India, public-private partnerships have been tried out and stabilized in the infrastructure sector, but there are very few examples in the VET sector, even though there is a need for developing such partnerships. New partnerships, alliances and consortia are emerging to cater to the learning needs of student population and to address the issues of quality assurance and diversified learning opportunities in VET, especially through information and communication technology.

The graduates who fulfil the following criteria can be placed for apprenticeship training:

- Candidates should have passed degree in engineering/technology or diploma in engineering/technology from the institutes approved by AICTE/Directorate of Technical Education of concerned State and 10 + 2 Vocational passed out students from Higher Secondary Schools/Junior Colleges and Intermediate Education.
- Candidate should not have undergone apprenticeship training elsewhere.

- Candidate should not have work experience of one year or more.
- Candidate should not have completed three years after passing of the qualifying examination.

The seats allotted by the regional board of apprenticeship training (BOAT), are required to be filled through any source, either by contacting technical and vocational institutions of nearby area or releasing advertisement in newspapers or by approaching the BOAT for list of candidates or participating in the centralised selections organized by the Board. The Government of India, Ministry of Human Resource Development, Department of Secondary Education and Literacy, reimburses 50 per cent of stipendiary amount to the training establishments through the respective regional boards. However, the training establishments are at liberty to pay stipend at higher rates than the minimum prescribed amount. If you wish to know more about the apprenticeship training you may visit the website of the Regional Board of Apprenticeship Training located at Chennai (Southern Region), Kanpur (Northern Region), Mumbai (Western Region) and Kolkata (Eastern Region).

There is a growing realization that it is the industry and industry associations should be involved to prepare trained manpower required for increasing the production and improving the services in the knowledge economy. A step in this direction has been taken by the Central Board of Secondary Education (CBSE), New Delhi to introduce new VET courses in partnership with the industry for providing better opportunities to the students in schools in developing practical skills and enhancing employability (see Box 3.1).

Box 3.1: CBSE's PPP initiative in schools

The Central Board of Secondary Education (CBSE) has introduced a new course on Financial Market Management (FMM) from the academic session 2007-08 in partnership mode. The FMM consists of three compulsory professional subjects each in classes XI & XII in addition to two academic electives one of which must be a language. Though not compulsory, the students offering this package may be advised to offer Functional English for language-1. For the second elective there are 3 optional academic subjects. They can choose any one subject from above choice. The students may further opt for an additional sixth subject, which can either be a language or an academic or a professional subject at the elective level, in order to ensure vertical mobility for pursuing higher studies, if necessary. The theory and practical examinations in all the papers will be conducted by the CBSE on an external basis as is the practice in other subjects with the help of National Stock Exchange (NSE) and experts from the industry. For the purpose of CBSE-NSE joint certification, the students will be required to pass 3 modules of NSE called NCFM (NSE's Certification in Financial Markets). NCFM is a professionally accepted certificate in the finance market industry. Joint certification with NSE will add credibility to employability of the students. NCFM-examination is an online computer based testing system. It tests the practical knowledge and skills required to operate in the financial markets. It is a fully automated system with testing, assessing, scores reporting and invigilation in a secure and unbiased manner. Training to Master Trainers is being provided through experts from industry on payment.

(Source: http://72.14.235.104/custom?q=cache:o4VsGLG1zQkJ:www.cbse.nic.in/circulars/CIRCULAR202007-Implementation_Guidelines.doc+CBSE%2Bprofessional+Education+and+Training&hl=en&ct=clnk&cd=1&client=pub-2456819124576563).

An important development in recent years has been the emergence of Corporate Social Responsibility (CSR), which has opened new channel for partnership between VET and industry. The partnership could be utilized in reducing the cost of VET through sharing of resources and increasing the quality of training through on-the-job training. The private sector is looking for opportunities in various aspects of the economy as the equation between the demand and supply is changing with emergence of newer consumers and newer demands for goods and services. The Confederation of Indian Industry (CII) launched the 'Skill Development Initiative' in 2004 and registered a Skill Development Trust to become a catalyst in creating skills movement in India. The object of the initiative is to generate social inclusiveness and to provide the socially and economically vulnerable population a chance to be a part of the mainstream economy.

Kharbanda (2000) emphasizes the significance of the university-industry symbiosis for the creation of the knowledge economy and especially the knowledge industry such as biotechnology and new materials and microelectronics. Additional employment opportunities will be generated in Information Technology, Textile, Insurance, Food Processing, Biotechnology, Leather Products, Tourism, Construction, etc. The Information Technology (IT) and Business Process Outsourcing (BPO) sector could employ 9 million persons directly and indirectly by 2010. The country will face a shortage of 500,000 knowledge workers by 2010. The IT services sector will need 150,000 employees while the BPO sector will need 350,000 trained personnel. According to the McKinsey report (2005), "The country will need 2.3 million professionals to meet the \$60 billion export revenue target by then. But the present education system will be able to churn out only 7,00,000. Besides 2.3 Million, it will provide indirect employment to another 6.5 million workers. The textile sector could create employment for 12 million people in the next five years (see Box 3.2).

The Indira Gandhi National Open University (IGNOU) has taken a few initiatives to run joint collaborative project with various Industry Council and Associations. For example it is implementing a project with International Network for Bamboo and Rattan (INBAR), Commonwealth of Learning (COL) and Centre for Indian Bamboo Resource and Technology (CIBART) for developing educational and training programmes in bamboo and rattan (cane) for the unskilled and semi-skilled youth (Dikshit, 2005). IGNOU has also inked an agreement with the Retailers Association of India (RAI) for a one-year diploma in Retailing, with the provision of stipend to be provided to the students during the study.

Box 3.2: A case of PPP in textile sector

The Eleventh Plan (2007-2012) prepared by the Planning Commission, Government of India foresees a growth of 16 per cent in the textiles sector, which would foster incremental direct employment for a 6.5 million workforce in spinning, weaving, knitting, processing and clothing. The incremental manpower requirement in spinning is 4.10 lakh, in weaving 2.7 lakh, knitting 0.2 lakh, processing in 1.5 lakh and clothing 36.50 lakh, taking the total to 65 lakh. The Government appointed committee suggested that PPP-model for VET should be adopted through VET Institutions set up in "catchment" areas from where workers for the textile sector could be drawn and trained. VET Institutions located near existing clusters of the textile industry might be upgraded to meet the training needs of these clusters.

About 13 apparel training and design centres (ATDC) are being run by the apparel export promotion council (AEPC). ATDCs have trained over 21,000 workers since inception. AEPC plans to set up 25 new centers in 13 states and 13 mobile centers during the XI FYP. These would enable ATDCs to train 57,625 trainees besides training 30,000 students currently under various ATDCs. The investment requirement during XI FYP would be Rs.21,000 crore and would create incremental employment for 56.40 lakh workforce of which 28.25 lakh would be semi-skilled and 11.30 lakh unskilled (Srinivasan, 2007).

Utilizing the potential of PPP in VET

Economic and social policies in publicly and private administered VET systems can distract or boost investments in skills development. Private sector training can be expanded and improved by creating a favourable policy environment, reducing barriers to entry into the training market, providing partial subsidies for training and by allowing institutions to run flexible VET programmes on nationally recognized skill standards set by the Industry. The case for subsidization of training schemes can be made on social grounds for courses that facilitate training of informal sector workers, since these are usually disadvantaged and poverty groups.

A directory providing information on nationally recognized organisations in the States/UTs should be developed for promoting school-industry linkages and ensuring cooperation of the industries in training and placement purposes. The support and cooperation of Institutions like PHD Chamber of Commerce and Industry (PHDCCI), Confederation of Indian Industry (CII), Indian Industries Association, Federation of Indian Chambers of Commerce and Industry (FICCI), Associated Chambers of Commerce and Industry (ASSOCHAM), Commodity Boards and the like should be taken by the Institutions to develop database and skill standards.

Barriers to partnership success

Partnership between VET Institutions and Industry may experience barriers that could include: (i) difficulty in convincing parents and students on the importance of workplace training; (ii) lack of industries in the vicinity of the school/ VET Institutions; (iii) convincing owners/representatives of Industry and Enterprises on their role in skill development and accrued benefits; (iv) misunderstandings over the roles and functions of partners; (v) resistance from the staff of the VET Institution due to enhanced role as coordinator, counsellor and VET teacher or trainer; (vi) resistance from the Industry in allowing the use of equipment and raw materials; (vii) lack of leadership qualities in the Head of the Institution or Principal for utilizing personal goodwill for dealing with the participating Industries, (viii) lack of transport or unsuitable public transport facilities for transporting students to the Industry or workplace for regular training; and (ix) inflexible timings to encourage workplace learning in Industry.

Success of partnership

After understanding the various barriers to partnership success, let us now try to discern the various factors that influence the success of partnership. Success of partnerships require sound project management, smooth information flow, flexibility in terms of ad hoc changes required from time to time, trust and long-term commitment by every partner or key player. The 'success' of partnership should be measured in terms of tangible outcomes like number of trainees trained, employment outcomes of youth, and also less tangible outcomes, such as enhanced participation, learning through involvement in partnerships, effective coordination with local organization and industries, increased trust among stakeholders, etc. Raising awareness, building capacity and consensus on Public-Private Partnership model among public-private stakeholders is essential for the success of partnership in VET.

ACTIVITY 16



You have read above the various barriers to partnership success. Let us find how the representative's of industry respond to the proposal of partnership in different areas of VET. Administer the schedule given in table 1 to the representatives of industry and analyse the findings. Based on your finding and observations present your views below in about 100 words.

Table 3.1: Schedule for assessing the attitude of industry representatives' towards supporting the implementation and management of vocational education and training

S. No.	Particulars	Please tick (√) in the row for the areas in which your Industry/ Organization would like to provide support
Human Resources		
1.	Identification of skills shortages in your industry.	
2.	Development of national skill standards	
3.	Support in competency based testing for recognition of prior learning and work experience.	
4.	Signing of Memorandum of Understanding (MOU) for collaboration between VET Institutions and your Enterprise/ Industry	
5.	Development of competency based curricula and training packages.	
6.	Development of guidelines for Accreditation, Training, Assessment, Certification, etc.	
7.	Organizing training of trainers.	
8.	Organizing training programmes for managers at all levels.	
9.	Organizing on-the-job training for the trainees in vocational trades related to your industry	
10.	Improving communication between various stakeholders and providing assistance in advocacy of VET.	
11.	Organizing interim consultation meetings of stakeholders to review the progress and to decide upon the future course of action for improving upon the implementation of VET programmes.	
12.	Review and revision of training packages.	
13.	Competency based testing of trainees in trades related to your Industry	
14.	Participation in joint certification of trainees with VET institutions	

15.	Organizing Apprenticeship Training for vocational graduates	
16.	Management of VET Institutions	
Physical Resources		
17.	Construction of new building or classroom/workshops for VET schools/institutions.	
18.	Purchase of equipment and raw materials	
19.	Establishment of Industry - Institution Coordination and Placement Cell in VET Institutions	
Financial Resources		
20.	Partial funding of national VET scheme	
21.	Adoption of VET Institution for training of trainees	
22.	Funding of Apprenticeship Training	
23.	Sponsoring scholarships/ fellowships in VET	

Remarks, if any -

Signature

Name of the representative:

Name and address of the industry:

Summary

We have discussed in this unit the importance and role of partnerships in providing quality VET. A wide range of partnerships is available in health, community, regional and rural development, welfare support, as well as education and training. Linkages between VET institutions and industry for providing technical support relevant to vocational courses have been recognized as an important feature of VET. There are four different models adopted for delivery of VET viz., (i) Institution-based model, (ii) Industry-based model, (iii) Collaborative model and (iii) Multi-channel model. Partnership in VET means that in order to operate the VET system at least two partners are required that will generate finance, manage resources and implement VET programme(s) to achieve the shared goals and objectives. The arrangement between VET institutions and industry for delivery of VET substantially reduces the cost and time spent in the learning process.

The partnership in VET, as it is being developed in some countries, includes private sector participation in (i) decisions regarding the feasibility of public investment in VET, (ii) identification of skills needs and the development of competency based curricula, (iii) management of public training institutions, (iv) provision of enterprise-based training in coordination with public training institutions, and (v) monitoring and evaluation activities. Many initiatives have been taken in

recent years by the developed and developing countries to bring about necessary reforms for improving the quality of VET programmes. Various models of School-Industry linkages, which have emerged include (i) Regional cluster model, (ii) Specialised programme model, and (iii) Whole-of-community model.

In India, participation of the private sector in the governance of VET systems through national committees or Institutional Management Committees is beginning to emerge as a public-private partnership model in VET. Government can provide clear goals and objectives to achieve them by developing national policies, national skill standards, incentives to encourage private participation in VET and reduce the regulation of private training institutions. Continuous supervision and monitoring allows improvement in the delivery of VET, optimisation of performance and sustained involvement of all the partners in VET. The long-term viability of partnership depends upon the relationships between the groups (Government, Industry, Employers, Professional Associations, VET Institutions, Civil Society Organisations, etc.) constituting the partnership.

The international experiences in implementation of VET through public-private partnership (PPP) mode have been shown. Active participation of the private sector is constrained by weak private sector organizations, which lack a vision for human resource development in their strategic objectives. Community partnerships constitute localised networks, which bring together some combination of local community groups, education and training providers, industry and local government to work on various local community and community-building activities. Non-Government Organizations initiatives and interventions in awareness, mass-mobilization and implementation of VET have lead to better participation of local population in vocational education and training. Raising awareness, building capacity and consensus on Public-Private Partnership model among public-private stakeholders is essential for the success of partnership in VET.

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Questions for critical reflection

1. What initiatives and steps need to be taken by the VET institutions in India to utilize the recent changes in the outlook of industry associations towards VET?
 2. How industry-institution partnerships would be useful in addressing the issues of access and equity in India?
 3. Vocational education and training should be a major concern of the industry and the Government should focus on primary and secondary education. Do you agree or disagree with the statement. Give at least two reasons why you think so?
 4. What should be done to build the capacities of the Head of the VET institutions so that s/he can contribute effectively in operationalising and sustaining institution-industry linkages?
-

Introduction

Vocational education is witnessing focussed attention at various levels of decision making bodies. Vocational education has received limited success towards employability and creating pool of skilled manpower. This is corroborated the from poor status report of the Vocational Education and Training (VET) in the country, growing unemployment among youth and poor quality of services (e.g., equipment repair, construction and associated repair) and goods of common consumption (including drugs and pharmaceuticals) generally produced by the small scale/ micro sector. The issue has been well articulated in the recent release *The India Labour Report 2007* by the Teamlease that "Indian youth are unemployable as 90 per cent of our college and school output has only bookish language". It is an opportune to strengthen and expand VET system in the country, as the way academic education in schools and colleges is going it will not help the individuals nor the country in any way. Along with VET, it is necessary to encourage entrepreneurial initiatives among the people particularly youth against the backdrop that it is impossible for the government to provide means of livelihood to everyone. Entrepreneurship is an important objective for education and lifelong learning policies among many developed countries. In the present unit, we ss various elements of enterprise education meant to strengthen the vocational education so that the challenges of unemployment may be successfully met.



Learning outcomes

The objective of the unit is to provide broad framework of enterprise education under the Vocational Education and Training (VET). After reading the unit, you should be able to:

- define the term entrepreneurship and explain its need;
- state the employment scenario in the country;
- relate the interventions for strengthening the entrepreneurial activities;
- list out the characteristics of entrepreneurs and explain with the examples;
- analyse the changing dimensions of vocational education in the country; and
- apply the outlined enterprise education objectives in appropriate contexts with examples.

Entrepreneurship and its need

"Entrepreneur" as a word (noun) meaning "one who undertakes" was in use in the French language long before its emergence as a functional aspect i.e. "a person who starts a new business venture". We tend to relate entrepreneurs as people who have a talent for seeing opportunities and the abilities to develop those opportunities into profit-making businesses. Entrepreneurship has been defined as a "creative human act involving the mobilization of resources from one level of productive use to a higher level of use". It is the process by which the individual pursue opportunities

without regard to resources currently controlled." The dynamic notion of entrepreneurship which distinguishes it from the manager and capitalists was given by Joseph Schumpeter under the attribute "innovation" in his theory of innovation and economic development. Entrepreneurship is about introducing the innovative elements that leads to the expansion of the business. The elements of innovations may include:

- introduction of a new product;
- adoption of new technology;
- opening up of a new market;
- finding out a new source of supply; and
- bringing about a new organization of an industry.

The entrepreneur is the engineer of change, not its product. Profits are the premiums for innovations and continue only when one keeps one step ahead of rivals with innovations. Schumpeter's theory is based on certain assumptions like existence of capital society with private sector, private initiative, money and banking system, etc. In a country like India, the scenario is different as the social (value system) and cultural issues hold their importance besides issues related to infrastructure. Any innovation to succeed in our society needs to be accepted by our value systems and cultural issues. The government has realised the importance of entrepreneurship, and is creating infrastructure and encouraging entrepreneurial initiatives. National and State level Institutions like Entrepreneur Development Institutes (EDIs) have been established to develop entrepreneurship and schemes have been devised to provide assistance to the new entrepreneurs. We as the teachers have to spread awareness about need and importance of entrepreneurship in the current economic environment, and integrate the enterprise concepts in the class room teaching.

Entrepreneurship plays an important role in the economic growth and development of nation. Let us understand the need and significance of entrepreneurship. The advantages of Entrepreneurship Skill Development (ESD) are given below:

Increases national production

Entrepreneurs contribute directly to product and process development which in turn increases national economy. For example, more entrepreneurs in the area of food processing sector would be able to maximize the uses of raw material, and would also contribute towards development of processed products and processing industry in the country.

Balanced area development

As more entrepreneurs are developed both in rural and urban sectors, it will decrease the dispersal of the people from rural areas to urban areas. It will also help the rural industries as well as the industrially backward areas in the country to grow.

Dispersal of economic power

It is a process of empowering people. People can have "power" either through muscle, status or money. Entrepreneurship helps to balance "power" through participation, economic gain and position in the society.

Reinvestment of profit for the welfare of the area of profit generation

It has been observed that entrepreneurial community or people in a particular area would reinvest their profit for the development of roads, infrastructure as well as for the welfare of the people. Take for example, what contributions have been made by the well-known entrepreneurs like Tata's, Birla's and Reliance.

Development is a function of motivation and human resource

Any development requires participation of human resources. These people have to be motivated for contributing towards development. Entrepreneurship truly contributes to development through the participation of people who are motivated, energetic and have a concern for growth.

Entrepreneurial awareness

There is a need for creating mass awareness among the people whether they are students, unemployed youth, artisans, retired personnel, or housewives to be aware about entrepreneurship. More and more entrepreneurs lead to economic development.

From above we can say that the enterprising persons are required in all walks of society and enterprise skill development is vital because:

- enterprising people are an asset to the nation;
- through enterprise education, students and youth will develop alternate options of economic careers;
- enterprise education will enhance one's personality; and
- enterprise education would give the youth a positive outlook in life as also a positive belief in themselves.

The scope of entrepreneurship development in country like ours is tremendous. Especially since there is widespread concern that the acceleration in GDP growth in the post reforms period has not been accompanied by a commensurate expansion in employment. The country can transform itself from an economy burdened with unemployment to an employment generator if quality vocational education is provided well integrated with the enterprise education to a large mass of youth. The country can then, be proud of internationally certified carpenters, car mechanics, retailers, export-import assistants, wholesalers, masons, electricians, gardeners, beauticians and the technicians in other vocations. The employment scenario discussed in the next sub-section will further establish the need of enterprise education.

ACTIVITY 17



Identify the important entrepreneurs in your area and articulate their contribution in the area/city/district. Write in about 150 words.

Employment scenario in India

We know that unemployment is the biggest challenge in our country. Every year a large number of youth enter the job market after completing their school/collegiate education. Non-availability of corresponding employment opportunities in the organized as well as in unorganized sector has increased unemployment. There is a demand-supply gap today, of at least 50-60 per cent and many college pass-outs do not get appropriate jobs. The State governments have 40 million educated unemployed on their musters even as domestic industry is experiencing severe shortages of skilled personnel.

Youth unemployability is a bigger crisis than unemployment. Fifty-three per cent of employed youth suffers from some degree of skill deprivation, while 57 per cent of India's youth were suffering some degree of unemployability, according to "India Labour Report-2007". One of the reasons for this scenario is lukewarm approach to implementation of proper vocational and training system in the country as about 90 per cent of employment opportunities require vocational skills.

Current status

The level of employment, its composition and the growth in employment opportunities are the critical indicator of the process of development in any economy. According to NSSO 61st round (Employment and Unemployment Situation in Cities and Towns in India, 2004-05- Report No. 520) estimates the employment growth accelerated to 2.6 per cent during 1999-2005 outpacing population growth. But area of the concern is average daily status unemployment rate, which had increased from 6.1 per cent in 1993-94 to 7.3 per cent in 1999-00, increased further to 8.3 per cent in 2004-05. The rural male and female unemployment rate is now 2.1 per cent and 3.1 per cent respectively, while the corresponding urban unemployment is 4.4 per cent and 9.1 per cent. The extent of under-employment also appears to be on the increase. The skill deprivation among youth is quit significant and it is estimated that the skill deficit would cost Rs. 4,90,000 crores, or 10 per cent of our GDP over the next two years. The present employment & unemployment situation in India [during Jan-June 2004 (usual status basis)] is outlined in the Table 4.1.

Table 4.1: Salient features of structure of employment in India

S.No	Salient Features	
1.	Total Labour Force	45.8 Crore
2.	Total Employment	44.7 Crore
3.	Total Number of open unemployment	1.06 Crore
4.	Employment in organized sector	2.64 Crore
5.	Employment in unorganized sector	42.10 Crore
6.	No. of job seekers with Employment Exchanges	4.03 Crore (as on 31.12.2005)
7.	71 per cent of the job seekers registered with the Employment Exchanges are less than 29 years of age during 2003	
8.	Educated (X Standard and above) job seekers constitute about 75 per cent of the total job seekers registered with the employment exchanges during 2003	
9.	Most of the job seekers (about 80 per cent) in employment exchange are without any professional skill	
10.	The self-employed constitute about 53 per cent of total employed	
11.	The share of agriculture in total employment has come down from 61.67 per cent during 1993-94 to 58.54 per cent during 1999-2000 and further to 54.19 per cent during 2004-5.	
12.	Employment prospects of the educated youth have worsened during the past decade or so because of low or negative growth in public sector employment that was the major employer of educated youth.	

Source: *Report of the Working Group on Skill Development and Training*, set up for preparation of the XI Plan

Projections

It is envisaged that if the current trends of employment generation continue, India will face an 'unemployment explosion' with substantial negative socio-economic ramifications. "India Labour Report 2006" says there will be over 211 million unemployed in 2020, which works out to an unemployment rate of 30 per cent. The overall labour force will be around 716 million, of the total estimated population of 1.35 billion. The report says unemployment will largely be a youth problem: nine out of 10 unemployed people will be in the 15 to 29 age bracket.

The youth – a vital and vibrant component of the society – constituting about 30 percent of the population play an important role in shaping the future of the country. Creating gainful and productive work for youth is greatest challenge. The two reports prepared by the Planning Commission (Report of the Task Force on Employment Opportunities and Report of the Special Group on Targeting Ten Million Employment Opportunities per year over the Tenth Plan Period) to generate employment opportunities for 10 crore people over the next ten years have strongly recommended self-employment as a way-out for teaming unemployed youth. Enterprise Education is one of the solutions for sustaining the self employment and can be viewed as an opportunity for the nation to create an entrepreneurial society.

The target in the XI Plan includes creation of 65 million non-agricultural employment with focus on labour intensive manufacturing sectors such as food processing, leather products, footwear, and textiles, and service sectors such as tourism and construction. A possible logical approach is to embark upon a new educational initiative: students with entrepreneurial-spark identified and imparted with competencies to setup and manage new enterprise of own. A good number of the future generation has to become the engines of wealth creation for the rest of them and the nation. The need is to fill the gap in preparing today's youth with an entrepreneurial mindset, supported with skills to deal with changing critical needs of the knowledge era that is revolutionizing the global economy.

Initiatives

The Government has taken a number of initiatives such as NREG Act, setting up of Entrepreneurship Development Centres and amalgamation of two Ministries to form the Ministry of Micro, Small and Medium Enterprises to address employment issues.

The national rural employment guarantee Act' 2005 (NREGA)

The National Rural Employment Guarantee Act' 2005 (NREGA) has been launched for securing the livelihood of the people in rural areas by guaranteeing 100 days of employment in a financial year to every household whose adult members volunteer to do unskilled manual work. The Act confers the status of a legal right to the employment. It is expected to enhance people's livelihood security on a sustained basis, by developing economic and social infrastructure in rural areas. One of the most distinguishing features of the NREGA is its approach towards empowering citizens to play an active role in the implementation of employment guarantee schemes, through gram sabhas, social audit, participatory planning and other activities (www.rural.nic.in / www.nrega.nic.in)

Swarnjayanti gram swarozgar yojana' (SGSY)

Swarnjayanti gram swarozgar yojana' (SGSY) is the largest self-employment programme for rural poor. It is a strategy for social mobilization of rural poor for economic up-liftment. The assisted families (Swarozgaris) may be individuals or groups (Self-Help Groups). However, the emphasis is on the group approach. The objective of the SGSY is to bring the assisted poor families above the poverty line by providing them income generation assets through a mix of bank credits and government subsidy. It is a holistic programme covering all aspects of self-employment such as organization of poor into Self-Help Groups and taking care of training, credit, technology infrastructure and marketing. In order to provide incentives to rural artisans SARAS Fairs are also organized in various parts of the country to promote sale of products produced by the Self- Help Groups (www.drd.nic-guide-sgsy.htm)

Micro and small enterprises

Worldwide the micro and small enterprises (MSEs) have been accepted as the engine of economic growth and for promoting equitable development. The MSEs constitute over 90 per cent of total enterprises in most of the economies and are credited with generating the highest rates of employment growth and account for a major share of industrial production and exports. In India too, the MSEs play a pivotal role in the overall industrial economy of the country. It is estimated that in terms of value, the sector accounts for about 39 per cent of the manufacturing output and around 33 per cent of the total export of the country. Further, in recent years the MSE sector has consistently registered higher growth rate compared to the overall industrial sector. The major advantage of the sector is its employment potential at low capital cost. As per available statistics, this sector employs an estimated 31 million persons spread over 12.8 million enterprises and the labour intensity in the MSE sector is estimated to be almost 4 times higher than the large enterprises.

The President under Notification dated 9th May 2007 has amended the Government of India (Allocation of Business) Rules, 1961. Pursuant to this amendment, Ministry of Agro and Rural Industries (*Krishi Evam Gramin Udyog Mantralaya*) and Ministry of Small Scale Industries (*Laghu Udyog Mantralaya*) have been merged into a single Ministry, namely, "Ministry of Micro, Small and Medium Enterprises (*Sukshma Laghu Aur Madhyam Udyam Mantralaya*)".

Entrepreneur development centres

The Government plans to set up a network of fifty thousand Entrepreneur Development Centres (EDCs) by 2008 for capacity building of aspiring entrepreneurs and small & medium enterprises. The National Institute for Entrepreneurship and Small Business Development (NIESBUD) has been assigned the responsibility of effective implementation of the EDC scheme by providing training curriculum, training material (including audio-visual material), capacity building through training of partner institutions core faculty and e-classes through video-conferencing. The centres shall be established through public-private network (www.niedbud.nic.in).

There are ample opportunities in small businesses in India and such opportunities will transform India in the coming future. Practical and cost effective programmes need to be developed to address their requirements because self-employed people will represent an important segment in economic revitalization.

Entrepreneurship development is the key factor to fight against unemployment, poverty and to prepare ourselves for globalization in order to achieve overall Indian economic progress.

ACTIVITY 18



- i) *Enlist various schemes/plans/activities in operation designed to strengthen the employment scenario in your area/city/district.*

- ii) *Identify 'Entrepreneurship Development Institutes/Centres' in your area, and enlist their important activities.*

Changing dimensions of vocational education and training

The vocational education and training (VET) is being re-structured in the backdrop of large number of youth getting alleviated from academic stream in schools, as also of growing unemployment among the educated youth. The enrolment for VET at tertiary level stands at merely 2 per cent. In Germany 65 per cent of the work force is VET qualified. In USA, EU and China it is between 75-80 percent. The entire scenario of the VET in the country is presented in two parts: (a) issues in skill development and (b) trends in vocational education.

Issues in skill development

We know that the overwhelming majority of the workforce, not only in rural areas but also in urban areas, does not possess any identifiable marketable skills. Nearly 300 million men and women in the age group of 18-50 years are not employable, simply because they do not have any marketable skills. About 98 per cent of 11 million students in higher education are enrolled in universities and colleges and out of these 72 per cent are studying social sciences. Majority of graduates are not trained in any skill or vocation. Only 2 per cent of school leavers opt for vocational training, which is way below international and industry standard. Planning Commission constituted a Eleventh Plan Working Group on Skill Development and Vocational Training. The problems which need to be addressed on priority as identified by the Group are as follows:

Lower percentage of skilled persons in the workforce

Majority of workforce both present and potential does not possess requisite skills and need to undergo training. Only 5 per cent of the Indian labour force in the age group of 20-24 has received vocational training whereas the percentage in industrialised countries is much higher, varying between 60 per cent and 80 per cent. The illiterate and literate up to primary level of education constitute a very high proportion of the existing work force, the two together account for nearly 67 per cent of the work force. See the paradox -while on the one hand the level of educational attainment of the existing work force is very low, the educated without professional skills on the other hand constitute 69 per cent of the total unemployed. A major reason is that system is excessively oriented towards general academic education with little or no vocational orientation.

Demand for vocational training from school drop-outs

Over 200 million students enroll for schools in Class I each year, but only 20 million of these are able to finish Class XII i.e. 90 per cent of the school students drop out at different stages. Only 2.5 to 3 million vocational education and training places are available in the country. Out of these, very few places are for early school dropouts. This signifies that a large number of school drop- out do not have the necessary education and skills to be productively employed in the industry.

Need to focus on the skills for the informal sector

The largest share of new jobs in India is supposed to come from the unorganised sector that employs up to 93 per cent of the national workforce and produces 60 per cent of GDP. These small and micro enterprises are supposed to play a central role in the national economic growth, they should be further strengthened and expanded, these by using them as employment creation strategy. But for making use of their potential it is necessary that they are provided with skilled manpower.

The formal skill training system, because of its educational entry requirements and long duration of courses, is basically not designed to offer skills to the low-educated people, nor the system has enough capacity to enroll all youth who meet the criteria.

Training for specific and fit-for-purpose skill sets

It has been viewed that there is a great need for employability and outcome based training courses and delivery. Today we find that a lot of jobs that are available in the market do not require two-three year courses. For a lot of entry level jobs across industries the skills required warrant merely focused short duration courses. Modular structure of short courses allows a professional to upgrade his skills without compromising on his earning capacity for undergoing a long duration training programme and provides him with the flexibility to acquire this at his convenience.

Limited facilities for skill development

Facilities to impart skill development programmes for about 3 million persons per annum exist in the country whereas the total labour force is about 400 million. Every year 7 to 8 million labour force enters the market. Majority of it has not undergone skill development programmes.

The concerns which could be articulated from above are: (a) identification of emerging requirements of training, (b) improving effectiveness, efficiency and relevance of training, (c) facilities for life long learning, (d) skill development needs of the unorganised sector and (f) training of Instructors/trainers.

Trends in vocational education and training

The vocational education & training (VET) concept beginning from 'Nai Talim' has been advocated in all the policy formulations, yet the output in terms of productive human resource is marginal. The VET system in our country is fragmented and its implementation is weak. The need of vocational education is indisputable. The system has not been created considering the development needs of the youth - rural, urban areas, in remote areas of the country, youth from economically and socially backward communities, tribal youths etc. The concern for it has been expressed in various policy bodies. Systemic reforms in VET are needed to increase efficiency (separate management structure, capacity building of managers, better coordination), effectiveness (adequate infrastructure, stable and sustained funding, updated and upgraded curriculum content and delivery, simple accreditation) and transparency (good governance, self-accountability, quality assurance) in the management and implementation of VET programmes. The system to be developed considering all the factors which adversely affects its functioning.

The National Knowledge Commission (NKC) in its report on VET has recommended, "There is an urgent need to redefine the critical elements of imparting vocational education to make them flexible, contemporary, relevant, inclusive and creative". The Prime Minister in the Full Planning Commission meeting on 13.9.2007 mentioned that capacity will be developed for enrolling one crore children under the vocational education. The new ILO recommendations on "Human resources

development: Education, training and lifelong learning (No.195)" calls on member States to develop and implement education, training and lifelong learning policies that promote people's employability throughout their lives. National Curriculum Framework (2005) having considered all these aspects, has given a framework for establishing a very comprehensive vocational education and training system in the country, a system parallel to the existing system of general education, with built-in provision for vertical and lateral mobility, flexible enough to cater to the present and future life-long need of the workforce (pre-employment and post-employment). The system is inclusive in nature by design in terms of vocational skills (traditional to Hi-Tech skills), entry and exit provision, and in terms of early qualification. NCF (2005) has proposed that VET should be introduced in a *mission mode*.

The '*All India Consultation meeting on Vocational Education and Training: Setting Directions and Strategies for XI Five Year Plan (2007)*' has also suggested strategic approaches on the same lines.

Implementation of VET in mission mode

Vocational Education and Training should be implemented in a *Mission Mode*.

Unification of VET systems

A mix of reforms at the national, regional, state and Institutional levels have to be made through a unified system of Vocational Education and Training rather vocational education or vocational training programmes running under various Ministries.

Flexible training

Flexible and modular vocational courses of varying duration, leading to certificate, diploma or advanced diploma should be offered through VET Institutions. The vocational courses should provide multiple entry and multi-exit points, with built-in credit accumulation and credit transfer facility.

Establishment of separate VET institutions

Establishment of independent Vocational Education and Training Institutions (VETIs) at State, District and Block levels, and for a cluster of villages within a block is required to implement the proposed scheme of VET in Mission Mode. The new VET scheme should be inclusive in nature, providing skill development for enhancing employability youth, especially those who have historically suffered due to their economic, social or cultural backgrounds and the physically and mentally retarded or differently-abled persons.

Promoting private sector participation

The Central Advisory Board for Education (CABE) Committee on Universalisation of Secondary Education (2005) has suggested that the private sector participation should be ensured in management of institutions and curriculum design for bringing about organizational and productive innovations. A high degree of ownership, commitment and involvement should be attached to the VET programme by the stakeholders-learners, trainers, training specialists, teachers, key functionaries, trade associations, industries and parents. Delivery of VET through a new partnership between the Government, employers, professional associations, industry employee's trade unions, local community and NGOs should be done. The apex Industry Associations like Confederation of Indian Industry (CII), Federation of Indian Chambers of Commerce and Industry (FICCI), Associated Chambers of Commerce and Industry (ASSOCHAM), etc., should be involved to a greater extent in implementation of VET.

National vocational qualifications system

A National Vocational Qualification (NVQ) system is needed in India to provide accreditation to prior learning (APL) and for developing a competency based training, assessment and certification mechanism. There is a need to set minimum vocational qualification levels across a range of occupations with a view to raising the skill levels in the workers.

Quality VET for all

Intensive training including workplace mentoring, apprenticeships, and paid employment should be an integral part of all VET programmes to provide rich work place learning experience. VET should provide flexible path-ways to individuals for moving between the training and employment and should suit the diversity of purpose.

Integration with open and distance learning system

Open and distance learning system can play an important role in extending the access of VET to those who live in rural, tribal and remote areas.

Development of soft and entrepreneurial skills

Technological change is expanding the cognitive and theoretical knowledge required for productivity in skilled occupations, thus increasing the need for workers to have a foundation of basic competencies. Although occupational skills play an important role in VET, it is now increasingly felt that special attention should be given to generic skills. The most important of these are the abilities to communicate clearly in writing and to use mathematics and science skills to diagnose and solve problems.

The ability to think creatively, make decisions, solve problems, visualize, reason, analyze, interpret, and know how to learn these skills are most often mentioned in definitions of critical thinking. These skills are not only critical to work; they are also needed to deal with the increasingly complex spheres of family, community and society. The emphasis in VET should be on the development of soft or generic skills so that workers could respond to the changes in technologies and market demands. Generic skills that cut across a number of occupations should be made an integral part of the vocational course so as to enable an individual to transfer from one field to another during his/ her working life. Enterprise Education, which is directed towards enthusing students to identify, initiate, create and successfully manage personal, business and community opportunities, should form an integral part of school curriculum and all VET programmes so that the enterprising abilities could be developed in learners to start micro-enterprises. Entrepreneurship development programmes should be an integral component of all vocational courses so that a large number of youth can be motivated to start their own enterprise.

ACTIVITY 19



Prepare a brief report covering status of VET and new initiatives in your district/area in about 150 words.

Entrepreneurship education in vocational education and training

In recent years there has been increasing emphasis on enterprise education. Entrepreneurship is an important objective for education and lifelong learning policies in many countries and they are committing substantial sums of money to encourage more educational enterprise activity in future years (Davies Review Report, 2002 and Onstenk, 2003). We, as vocational educators, have to appreciate that starting a business is a natural growth of vocational skills training. Enterprise competencies should be integrated in general and vocational education as a stimulus to enterprising behaviour in the labour market (work-entrepreneur) as well as seeing entrepreneurship as a natural career possibility. Vocational education must extend beyond the delivery of occupational knowledge, job skills, and work experience. It must offer students an incentive for thinking creatively and broaden their understanding of the career opportunities offered in the industry. Enterprise education involves the development of enterprise capabilities. The present vocational education programme offered at +2 level in school does not have an entrepreneurship development component in the curriculum.

Nature and characteristics of entrepreneurship

In this section, we shall discuss primarily those attitudes and behaviours that are shared to varying degrees by successful entrepreneurs besides some necessary characteristics such as energy level and basic intelligence. These are based on one of the units of the course: Entrepreneurship and Rural Development (MRDE-004 Block 1: Understanding Entrepreneurship): as highlighted by Thomas W. Zimmerer and Norman M. Scarborough in their book *Entrepreneurship and New Venture Formation* (Prentice Hall, New Jersey, 1996).

Commitment and determination

For an entrepreneur to be successful attitudes of commitment and determination are very important. Especially in cases of new ventures the entrepreneur has to completely immerse her or himself in the enterprise. Without this total commitment the entrepreneur might end up spoiling all the

effort just for small errors that could have been avoided had she/he been adequately careful. The undiluted determination of successful entrepreneurs is candid by the sincerity with which they perform their task.

Desire for responsibility

The entrepreneurs have a keen desire to have access and control of resources that they would productively utilize/engage to achieve their self determined goals. They prefer to bear the responsibility of the outcome of the venture they are associated with. This willingness to accept the responsibility for the outcome of the entrepreneurial venture is closely related to the deep desire of entrepreneurs to maintain an internal locus of control.

Opportunity obsession

An entrepreneur is on the look out for opportunities that enables one to fix a goal that one can achieve. Even periods of crisis would be an opportune moment to realize some goals. Out of chaos the entrepreneur recognizes and picks up an opportunity and eventually proves himself successful. "The successful entrepreneur is also very adept in determining the difference between and idea and an opportunity, being constantly on the look out for those ideas that do, indeed, present opportunities.

Tolerance for risk, ambiguity and uncertainty

Entrepreneurs do not gamble. They avoid taking unnecessary risks. They essentially are risk managers who only take calculated risks. High rates of changes, risks and ambiguity are accepted as normal in their world. Uncertainty is something that is treated as a given condition. One has to live with it. In such a world, it is important that the entrepreneurs learn to manage risk and make sure that the risks taken are reasonable ones, commensurate with the perceived rewards. Entrepreneurs learn to manage risk, in part by transferring part of the risk of the venture to others (investors, bankers, customers, suppliers and so forth).

Entrepreneurs display tremendous capacity to tolerate ambiguity and uncertainty. They are quite used to conflict. "They view conflict as a means to an end in examining risk, uncertainties and potential rewards. Successful entrepreneurs capitalize on the constructive effects of stress and minimize the negative reactions of exhaustion and frustration."

Self confidence

Entrepreneurs are generally optimistic. They have great faith in their ability to take initiative and eventually succeed in a venture. They are quite confident to perform the needful as they firmly believe that things are well within their control and they are capable of accomplishing the task. Their level of self confidence is pretty high. "The preponderance of research also indicates that effective entrepreneurs actively seek and take initiative, evidenced by their constant willingness to assume personal responsibility for the success or failure of the operation."

Creativity and flexibility

Entrepreneurs are often faced with changing demands of their customers and their business. They can by no means afford to be rigid. They have to be flexible enough to live up to the expectations that keep changing. "The ability to respond to in a flexible manner to constant change requires a high degree of creativity. Very often ambiguity will serve better than certainty. A creative entrepreneurial mind is required to deal with this ambiguity in the development of problem solutions".

Desire for immediate feedback

Entrepreneurs get to know what they are doing. There has to be constant feedback of the consequences of their actions so that they take realistic measures to achieve their goals. "They have a strong desire to use this knowledge to improve their performance. This characteristic is also very relevant to their desire to learn from mistakes. Consequently, such entrepreneurs are often described as excellent listeners and quick learners.

High level of energy

Entrepreneurs are extremely energetic. They are so much immersed in their venture that long hours of work become a routine for them. During the launch of an enterprise the extra energy that an entrepreneur puts in become a critical factor for its success.

Motivation to excel

Entrepreneurs like to excel in whatever they do. Most often they are self starters and have an inner desire to keep doing better than their previous performance. We have seen David McClelland developing his thesis based on this need for achievement. The drive is from within. They are "seldom driven by externally evidenced status and power. Rather, they derive satisfaction from the challenge of being creative and building their chosen venture. They appear to have a keen sense of their strengths and weaknesses.

Orientation to the future

The entrepreneurs do not sit idle even when everything seems to be going fine with them. They are constantly either on the look out for new opportunity or are trying to improve upon their set standards. They have to be very much proactive to live up to the need of the hour. Entrepreneurs engaged in high growth ventures, having more stakes, are consequently more concerned for the future.

Willingness to learn from failure

An entrepreneur is not scared of failure. He/she may have tried to set up a venture and may have failed but the failure would, more likely, make her/him further determined to taste success. "It is important in studying entrepreneurship to distinguish failure of a business from failure of the entrepreneur. They are not the same. Failure of a particular business is not necessarily a loss. Although the specific business no longer exists, the resources, in the macro sense, are most often redistributed. Furthermore, and most important, people learn from business failure. The only thing more painful than learning from experience is not learning from experience."

Leadership ability

Normally entrepreneurs have some experience related to the enterprise they are associated with. They have intimate knowledge about the resources required, the technology and the market. "It is rare, indeed, for a highly successful venture to be started by someone with no experience in the chosen field of the venture. Successful entrepreneurs have an ability to extend influence without power. This tactic requires that the entrepreneur be more of a mediator or negotiator than a dictator." With so much of knowledge and experience they tend to be visionary and a dreamer is that when a dreamer wakes up, there is nothing there. Such visionary leaders are not loners; they have no need to insist on getting all the credit. Rather, they realize that rarely is it possible to build a successful venture along.

The above characteristics facilitate "Enterprise capability" i.e. the ability to handle uncertainty and respond positively to change, to create and implement new ideas and ways of doing things, to make reasonable risk/reward assessments and act upon them in one's personal and working life.

Lifelong entrepreneurship education model

The Consortium for Entrepreneurship Education (www.entre-ed.org) supports the concept that entrepreneurship is a lifelong learning process that has at least five distinct stages of development. This lifelong learning model assumes that everyone in our educational system should have opportunities to learn at the beginning stages, but the later stages are targeted to those who choose to become entrepreneurs.

Each of the following five stages may be taught with activities that are infused in other classes or as a separate course.

Stage 1: Basics

In primary grades, middle and secondary classes, students should experience various facets of business ownership. At this first stage the focus is on understanding the basics of our economy, career opportunities that result, and the need to master basic skills to be successful in a free market economy. Motivation to learn and a sense of individual opportunity are the special outcomes at this stage of the lifelong learning model.

Stage 2: Competency awareness

The students will learn to speak the language of business, and see the problems from the small business owner's point of view. This is particularly needed in vocational education. The emphasis is on developing initial competencies that maybe covered in entrepreneurship class, by exposing student of VET through case studies of entrepreneurs working successfully in the locality.

Stage 3: Creative applications

There is so much to learn about starting a business; it is not surprising that so many businesses have trouble. We teach future doctors for many years, but we have expected a small business owner to learn everything by attending several Saturday seminars.

At this stage, students can take time to explore business ideas and a variety of ways to plan the business. Although it is still only an educational experience, students must gain a greater depth and breadth of knowledge than either of the previous stages. This stage encourages students to create a unique business idea and carry the decision-making process through a complete business plan.

Stage 4: Start up

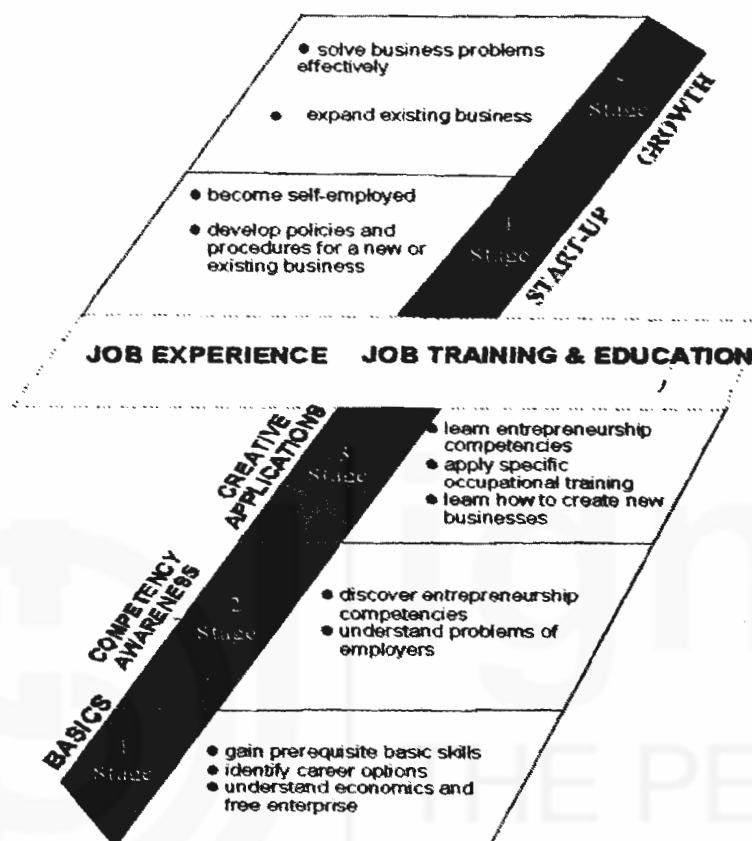
After adults have had time to gain job experience and/or further education, many are in need of special assistance in putting a business idea together. Entrepreneurship Development programmes are offered by the EDIS.

Stage 5: Growth

Often business owners do not seek help until it is almost too late. A series of continuing seminars or support groups can help the entrepreneur recognize potential problems and deal with them in time.

Educators at each of these stages of entrepreneurship should focus on their own special outcomes, and reach out for partnerships with educators at other levels of this lifelong learning process. There is room for entrepreneurship in some way everywhere in our educational system.

ENTREPRENEURSHIP LIFELONG LEARNING MODEL



LIFELONG ENTREPRENEURSHIP EDUCATION MODEL

Developed by The Consortium for Entrepreneurship Education

Figure 4.1: Lifelong entrepreneurship education model

Source: Consortium for Entrepreneurship Education (www.entre-ed.org)

Enterprise education

The enterprise education (EE) forms core area II under the curriculum for the work education at primary, upper primary and secondary stage under the national curriculum framework for school education (NCERT, 2000). The revised National Curriculum Framework (2005) of NCERT, has recommended work-centred education in schools, where productive work becomes the core around which other academic courses need to be built-in. Enterprise education, in the school can therefore be built up around the work-centred education. The Development Education (International) Society (DEIS), under the generic project name *Udyog Sadhana* (Development Education Programmes: Enterprise Education Development project in India), has developed vision, objectives, syllabi and course material of enterprise education (EE) for school level and in collaboration with several national and international agencies (www.education-enterprise.in/ www.sakashat.org). The same are comprehended here.

Vision

To provide an opportunity for every school going child, to develop entrepreneurial qualities, as a compliment to his/her education so that it enhances his/her capacity for productive economic activities.

Objectives

The class-wise objectives are:

Classes I and II

1. Awareness to various goods and services for identification of needs and wants for themselves, for family, other individuals and community.
2. Appreciate the role of different persons in the community as entrepreneurs, as providers of different goods and services and as workers.
3. Acquisition of learning, reading, writing and interaction skills. Exposure to meaningful use of working tools and vocational skills, in the process of production. Some preliminary appreciation of accounting skills may also be given.
4. Identification of range of opportunities available for starting an enterprise and the various strategies that may be adopted to produce different types of products and services.
5. Understand, the role of money in various economic transactions as a means and measure of exchange through exposure and experience. They should also appreciate importance of economic use of money.
6. Recognise the role of Government and its different agencies in the community and understand how taxes collected by the government are utilised for promotion and facilitation of business and economic activities.
7. Children should be aware about the roles of both entrepreneur (the producer and the supplier) and also the consumer or customers in business.

Classes III-V

1. Awareness about the contributions of various businesses and enterprises in their village/ town/city and also understand the role of various types and levels of tasks and jobs in starting and running the economic exchange activities in their village/town/city.
2. Appreciate the potential to work and earn in an area.
3. Able to distinguish between natural, human and capital resources through visits, activities and demonstrations.
4. Development of skills for sustainable utilization of resources.
5. Introduction to common forms of organisations that exist in India viz. Proprietorship, Partnership, Private Ltd. Companies, Public Ltd. Companies etc.
6. Appreciate the importance of right qualification, experience and motivation for a job. Abilities to identify intrinsic skills and relate them to possible career options in the future.
7. Sourcing of information to develop road map for setting up an enterprise.
8. Identification of activities related to promotion and advertising of products and services.

Classes VI –VIII

1. Awareness to the export and import trade practices of goods and services through interaction with entrepreneurs.
2. Acquaintance to the process of financial planning, budgeting and role of financial institutions, banks and other government agencies in starting and running an enterprise.
3. Appreciate the need for forward and backward linkages.
4. Introduction to competition and price fixation
5. Identification and characterization of resources to start an enterprise.
6. Preparation of marketing and business plans.
7. Appreciate importance of supply and demand laws on the working of businesses and enterprises.

Classes IX-XII

1. Comprehend the role of enterprises in the market-led economic system and Indian economy.
2. Identify the steps in the creation of an enterprise and organize production and marketing of business activities.
3. Enumerate the advantages and opportunities in the international markets and their effect on the Indian economy.

Concepts, skills and methodology

The concepts, skills and methodology at the various levels are given below in a tabular form (see Table 4.2)

Table: 4.2: Enterprise education: concepts, skills and methodology at various levels

Class	Concepts	Skills	Methodology
I - II	▪ Work ▪ Buying ▪ Choices ▪ Money ▪ Wants, Needs ▪ Family ▪ Interdependence ▪ Goods, Services	▪ Identifying choices ▪ Applying information	▪ Drawing ▪ Following Directions ▪ Listening responsively ▪ Sequencing ▪ Observations
III - V	▪ Job, Earning ▪ Incentive, Saving ▪ Marketing, Scarcity ▪ Consumer, Producer ▪ Exchange ▪ Tools ▪ Community, City ▪ Productive Resources ▪ Bank, Profit ▪ Communication ▪ Economic Zones ▪ Income, Expenses ▪ Demand, Supply	▪ Decision making ▪ Team work ▪ Interpreting information ▪ Differentiating ▪ Making observations ▪ Recognising and Interpreting symbols ▪ Using scale ▪ Recognise similarities and differences between Enterprises ▪ Interpreting questions	▪ Graphing ▪ Map and symbol reading ▪ Negotiation ▪ Create Pictograph ▪ Locate and label resources ▪ Construct puzzles ▪ Classifying

VI – VIII	▪ Business, ▪ Economic Institutions ▪ Employment ▪ Human Resources ▪ Vocational Skills ▪ Enterprise, Entrepreneur ▪ Productivity ▪ Government ▪ Vocations ▪ Natural Resources ▪ Capital Resource ▪ Regions ▪ Unit, Mass and Batch ▪ Marketing	▪ Abstract thinking ▪ Concrete thinking ▪ Analysing information ▪ Critical thinking ▪ Problem solving ▪ Mathematical interpretation and competition ▪ Filling of forms ▪ Business News ▪ Taking notes ▪ Drawing conclusions ▪ Convert currencies ▪ Analysing situations ▪ Oral and written communication	▪ Role playing ▪ Oral presentation ▪ Charting
IX - X	▪ Production ▪ Quality ▪ Division of Labour ▪ Taxes ▪ Careers ▪ Economic Development ▪ Forms of Business ▪ Stock and Shares ▪ Economy ▪ Budgeting ▪ Opportunity Costs ▪ Price System ▪ Ethics ▪ Competition	▪ Organise resources ▪ Compiling data ▪ Analysis of data ▪ Report writing ▪ Report presentation ▪ Oral presentation ▪ Conceptualising and Designing ▪ Budgeting ▪ Formulating a plan ▪ Collecting data ▪ Public speaking ▪ Debating	▪ Brain storming ▪ Structural analysis
XI - XII	▪ Domestic trade ▪ Global trade ▪ Import ▪ Export ▪ Currency ▪ Exchange rate ▪ Economic system ▪ Income distributions ▪ Absolute advantage ▪ Comparative advantage ▪ Quota ▪ Tariff	▪ Conduct situational analysis ▪ Summarising ▪ Goal setting ▪ Evaluating experience ▪ Consensus building ▪ Interpersonal relations ▪ Formulating an argument	▪ Conduct research ▪ Collect evidence of global trade ▪ Establish and run a student group operated enterprise

Implementation guidelines

The important guidelines in transacting the enterprise education are:

- Prepare school children to enter the world of work with a comprehensive understanding of themselves as individuals, as productive workers and also as consumers. It shall introduce them to effective working in teams as against excelling individualistically.
- Enhance the students' capacity to be original and enterprising.
- Capacity building for translating theory into practice.

- Other optional approaches for implementing Enterprise Education could be:
 - as a special project
 - as a cross-curricular programme
 - as a part of a syllabus
 - as a separate subject
 - as an extra-curricular activity
- Members and parents from business/industry enterprise in the local neighbourhood may be involved on a voluntary basis to enhance the effectiveness of enterprise education by sharing their practical experiences with students, and by acting as guides/mentors for student group initiatives of enterprise.

ACTIVITY 20



Based on the above concept, skills and methodology prepare learning experiences that you will like to give to students at different stages of schooling. The learning experience should be developed around some productive work appropriate for that stage of schooling/age of children (as per the concept of work-centred education NCF-2005). You may consult Position Paper - National Focus Group on Work & Education (2007), NCERT. Answer in about 150 words.

Summary

We are well aware with the problems of unemployment in our country and necessity for creating gainful and productive work for youth. The entrepreneurship development is gaining importance as an important policy resolution throughout the world. Entrepreneurship is about introducing the innovative elements that lead to the expansion of business. In this unit we discussed the need for entrepreneurship taking into account the employment scenario in the country. The targets and the new schemes initiated by the government to address employment issue have been specified. Enterprise education is one of the solutions for sustaining the self employment and creation of entrepreneurial society. In the unit we also covered the changing dimensions of the vocational education in the country and the recommendations of the National Knowledge Commission (NKC) "there is an urgent need to redefine the critical elements of imparting vocational education to make them flexible, contemporary, relevant, inclusive and creative." The Prime Minister in the Full Planning Commission meeting on 13.9.2007 mentioned that capacity will be developed for enrolling one crore children under the vocational education. Vocational education must extend beyond the delivery of occupational knowledge, job skills, and work experience. It must offer students an incentive for thinking creatively and broaden their understanding of the career opportunities offered in the industry. The unit outlines the nature and characteristics of entrepreneurship and a model for lifelong entrepreneurship education. The vision, objectives and syllabi and course material of enterprise education have been comprehended in the unit. It is important to transact the entrepreneurial concepts through practical elements.

Suggested readings



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Questions for critical reflection

1. What is the scope of vocational education in your district? Prepare an action plan for its implementation. Suggest some initiatives.
 2. What are the major objectives of enterprise education? How do you relate it in present scenario?
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